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A THOMISTIC APPRAISAL OF THE PHILOSOPHY OF JOHN DEWEY



THERE is more than one way to skin a cat and the ways to be rid of metaphysics seem even more numerous. A Descartes can make the connection between body and soul so tenuous that the realities of the spirit rise up into thin Berkeleyan air. The wisdom of the first philosophy can be declared unknowable by a man in Königsberg. Three men in Jena will claim vision of it as a veritable nonsense. Deny the mind's existence and sensation will perform the exorcising. Deny the soul itself and matter with heavy tread will tramp out all thoughts of being or the perfections of being while itself marching gravely to the grave.

Therein lay the difficulty. Each scissoring performed its task too well. Metaphysics was excluded but with it part of the world still desirable to retain. With Kantian bifurcation all was lost; recourse only in faith was left. With the positivist

and materialist renouncement, all values were renounced as well. Another cut could yet be made. It gave promise of retrieving for man a life with more than atoms and molecules on which to found his happiness. This was to divide not body and soul, at least not immediately nor as the principle of interpretation, not sensation and reason, nor matter from its form, but the mind itself. It was to take the practical and drop the speculative. At one stroke were values saved and metaphysics excised.

This split, of the practical function of the mind from its speculative power, was John Dewey's contribution to the history of man's search for wisdom. He dedicated his philosophic life, an unusually long one, to the implementation and exploitation of the practical and the extirpation of what he considered the obstructionist chimeras resultant upon any affirmation of the speculative. The result was the abundant literature of pragmatism, instrumentalism and experimentalism, as his thought was at various times called.

A Thomist, once aware of what was to be done, could predict with confidence general features of such a philosophic truncation, notwithstanding Dewey's vehement objection to such prophecy. After all, the practical function of the intellect has not lacked the attention of thinkers from Aristotle onwards. The nature, conditions, scope and limitations of the practical order are clearly marked out in the Thomist tradition. General traits of an exclusively practical philosophy can thus be readily foreseen. However, the radical arbitrariness of such an outlook forbids any particularization. The adoption of the practical as fundamental attitude admits, in terms of content, of widely diverse philosophic development. The insights into the practical afforded by tradition are best employed in analysis and appraisal of the philosophy Dewey has produced.

The integrity, indeed, the consistency of that philosophy has often been questioned. V. J. McGill, for example, regards instrumentalism as embracing two features: "1) a theory of meaning, and of truth or 'warranted assertibility' and 2) a

body of fairly flexible philosophical doctrines.”¹ For him, the connection between the two parts is not intrinsic. On the other hand, Joseph Ratner, on many occasions an official interpreter of the philosopher, maintains that, granted Dewey’s analysis of experimentalism, all else follows.² While in nowise sharing Ratner’s enthusiasm, Father Fleckenstein would agree that in Dewey’s thought method and philosophy are inextricably bound together.³ All are in a measure correct. The inner necessities of a solely practical outlook are limited to the disposition of only general features but, nevertheless, fundamental and determining ones. The rest is a matter of choice. Yet, a coherence is there and for a more profound reason than arbitrary convenience for the sake of plausibility.

The division made by Dr. McGill is, however, suggestive of a method of presentation. The British mathematical philosopher, Bertrand Russell, designates Dewey’s theory of inquiry as his most distinctive philosophical doctrine. Certainly it is in his theories of meaning and truth that Dewey differs from his contemporaries and by them that he seeks to stabilize the aims common to himself and Russell and most other non-Christian thinkers of the Western world. While today exposition of his thinking may follow a course made possible in the light of the finished product, genetically the theory of knowledge was his approach to what was his subsequent theorizing on metaphysics, education and the like. Moreover, investigation of what is involved in the exclusively practical character of Dewey’s theory of inquiry and of truth affords solid ground for unfolding the consequences and implications of the practical in his philosophic enterprise.

¹ D. Runes, ed., *The Dictionary of Philosophy* (New York: Philosophical Library, 1952), p. 246.

² J. Ratner, ed., *Intelligence in the Modern World* (New York: Modern Library, 1939), p. 58.

³ N. J. Fleckenstein, *A Critique of John Dewey’s Theory of the Nature and the Knowledge of Reality in the Light of the Principles of Thomism* (Washington: Catholic University, 1954), pp. vi, 179.

I. ANALYSIS OF THE PRACTICAL

To prove the existence of practicalism as a distinctive trait of John Dewey's philosophy is unnecessary. Not only is it universally acknowledged and, by his followers, acclaimed, but its presence is so obvious as to impress the most casual student of his works. That Dewey's practicalism is in accord with the Thomistic analysis of the practical is, however, not so apparent. Such an exposition can also serve the further purpose of making explicit the various elements of the analysis of the practical which can function as the instruments of criticism.

i. *The Speculative and the Practical*

There is an obvious difference between the metaphysician whose science leads him to know and the architect whose knowledge finds term in a building. Both know and the knowledge of each is a science; but, the end of the science of metaphysics is truth absolutely considered and in itself, while the end of the science of architecture is achieved in something beyond itself. The former constitutes a speculative, the latter a practical science. For Aristotle and St. Thomas these classifications, the speculative and the practical, constituted a primary division of philosophic sciences. Speculative philosophy, having truth for itself, to be known and contemplated, for its proper object, was divided further according to the grades of abstraction into metaphysics, mathematics, and natural philosophy. Practical science, concerned with the operable, is by difference therein either of morals or art.⁴

The nature of the speculative and the practical and the consequent differences and interrelations between them are given profound and explicit treatment by both the Stagirite and the Angelic Doctor. Commentators upon the teachings of St. Thomas, such as Cajetan, Capreolus, and John of St. Thomas, have further elaborated the subject. Recent years

⁴ *In Boet. de Trin.*, q. 5, a. 1; *II Metaphys.*, lect. 2; *III Cont. Gent.*, c. 25, n. 6; *Summa Theol.*, I-II, q. 57, a. 1; I, q. 14, a. 16; *De Verit.*, q. 3, a. 3; q. 14, a. 4.

have produced studies by Labourdette, Maritain, Noble, Simon and others. In 1945 Henri Pichette offered a brief but illuminating article and in 1948 Jean Pétrin, O. M. I., a very complete exposition.⁵ Advantage is taken here of these works to recount the outstanding and pertinent features of the nature and relations of the speculative and practical.

The nature of each type of knowledge is best presented by developing their characteristics as they are in opposition one to another. The primary opposition is that of end. Says Aristotle: "For the end of theoretical knowledge is truth, while that of practical knowledge is action."⁶ And again in the *De Anima*: "the practical mind, which calculates means to an end, differs from the speculative mind in the character of its end."⁷ In the teaching of Aristotle and St. Thomas ends are associated with good and the appetite; end properly so-called in the full sense of the word is by them understood as the good and as the object of the appetite. Is the end of the speculative intellect one possessed of such qualifications? Is it an end properly so-called? At first sight the answer might seem to be contained in the words of St. Thomas: "Truth and good include one another; for truth is something good, or otherwise it would not be desirable, and good is something true, or otherwise it would not be intelligible."⁸ Yet, while they include one another, the good and the true are not thereby identified; in such case, the objects of the speculative and the practical would differ only as one particular good from another. Hence, Dr. Pichette, who raises the question, concludes that strictly the practical differs from the speculative intellect in the very fact that it has an end in the proper and full sense. In the course of developing his thesis he unfolds much that is

⁵ Henri Pichette, "Considerations sur quelques principes fondamentaux de la doctrine du spéculatif et du pratique," *Laval Theologique et Philosophique* (Quebec: Université Laval, 1945), I, n. 1, pp. 52-70. Jean Pétrin, *Connaissance Speculative et Connaissance Pratique* (Ottawa: Éditions de l'Université, 1948).

⁶ *II Metaphys.*, c. 1, 993 B20.

⁷ *III De Anima*, c. 10, 433 A12.

⁸ *Summa Theol.*, I, q. 79, a. 11, ad 2.

of vital importance to the understanding of the speculative and the practical.

The truth is a good insofar as it is perfective of the intellect; is, in fact, the greatest of goods as perfecting the highest and most noble faculty. As such, it can be the object of the will, an end to be pursued. As such, it can be the end of the practical intellect, to be sought by motion and operation, a work to be done. On the other hand, the good is also a truth and can be in its nature defined. As such, it can be the object of the speculative intellect, constitutive of speculative truth. It, too, can qualify as a good, perfective of the intellect, and be the object of the will and the practical intellect as a good to be sought, a work to be done. To be noted is the fact that the perfection of the speculative intellect, truth, its good and end, remains within the intellect even when the truth considered is the truth of the good as such.

While the will can tend toward the truth as a good, and the speculative intellect can consider the good as a truth, the consideration of the good as good is performed by the practical intellect. Thus St. Thomas says: "Good can be considered by speculative knowledge, as its truth alone is considered, as when we define good and show its nature. Also it can be considered practically, if it is considered as good; this is if it is considered as the end of motion and operation."⁹ The order of the practical intellect to the end is to end as such, as the good of the appetite. Hence even when operating toward that good which is the good of the speculative intellect, truth, it does so under the aspect of its being good as such, object of the will. Whereas the speculative intellect remains under all circumstances within its own limits, the practical, with equal universality, tends always to that which is outside itself.¹⁰ "In short," says Pichette, "the goodness of the truth owes its

⁹ *De Verit.*, q. 3, a. 3, ad 9.

¹⁰ "Intellectus practicus habet bonum quod est extra ipsum; sed intellectus speculativus habet bonum in se ipso, scilicet contemplationem veritatis." *Summa Theol.*, I-II, q. 4, a. 5, ad 2.

perfection not to the fact that it is the object of the will, but first and absolutely to the fact that it is the perfection of the intellect. On the other hand, the good which is the object of the practical intellect is the perfection of the appetite as such."¹¹

The difference between the speculative and the practical does not spring from the intention of the knower. The one differs from the other in principle; of the speculative, the true; of the practical, the good as good. The intention of the knower does play a role, but the distinction based upon it is within the field of practical knowledge. So, according to St. Thomas, knowledge is called practical by reason of its order to some work; yet, sometimes it is actually so ordered as when a builder or architect, having conceived of a definite form, proposes to bring about its actualization. On the other hand, the practical is "sometimes knowledge, of itself possible of order to some act, but not actually so ordered, as when the maker devises the form of some artifact and knows according to the mode of operation, but does not intend to operate."¹² The latter knowledge is, although not actually and completely practical, yet practical formally and essentially. The extension of terminology makes this an important consideration.

Thus, Cardinal Cajetan warns that the terms speculative and practical are sometimes used to distinguish sciences according to their own proper conditions, and on other occasions to express the intent or practice of the scientist.¹³ The usage is

¹¹ Pichette, *op. cit.*, p. 55.

¹² "Aliqua vero cognitio practica dicitur ex ordine ad opus, quod contingit dupliciter. Quandoque in actu; quando scilicet ad aliquod opus actu ordinatur, sicut artifex praeconcepit formam proponit illam in materiam inducere; et tunc est actu practica cognitio, et cognitionis forma. Quandoque vero est quidem ordinabilis cognitio ad actum, non tamen actu ordinatur; sicut cum artifex excogitat formam artificii, et scit per modum operandi, non tamen operari intendit; et certum est quod est practica habitu vel virtute, non actu." *De Verit.*, q. 3, a. 3.

¹³ "Circa hanc partem adverte primo quod practicum et speculativum hic sumitur non solum ut sint conditiones scientiae secundum se, sed etiam ex parte scientis. Et propterea dicitur quod ars domificativa non intendit domificare, est speculativa ex fine, et practica ex modo et objecto: glossandum est enim de

familiar and common as distinguishing the theory and practice of medicine, engineering, etc. The point frequently overlooked, however, is that the denomination of such practical knowledge as theory or speculative does not transform it into a science essentially or formally speculative. The appetite in such knowledge is not functioning as motive, nor the end as impelling; but the appetite and the good do enter as constitutive of the scientific object. The end of the scientist is truth, but the truth thus terminative is practical. What is sought is not the truth of the good, its nature as such; that knowledge would be completely and formally speculative. The determination of a specific object in its relation to the appetite as convenient or inconvenient, as a real or apparent good, has for its principle the truth as such, and is a speculative consideration. What is sought in all practical knowledge is the good as good, as subject to operation, as able to be pursued. The principle of practical knowledge is the object of the appetite as appetite. Practical knowledge does not question the truth or falsity of its object as to its essential nature but is concerned with it solely as operable, as capable of being done or made. Consequently, even practical knowledge which is such only formally and not actually or completely and which thus entitatively remains within the intellect, yet retains an order to that which is outside the intellect, to the object of the appetite. The distinction between the speculative and the practical, based upon the consideration of the ends intrinsic to each, is profound and independent of the knower involved; yet that based upon the intention of the knower is, when properly understood, of even greater significance. It is determinative of the limits within which can be had practical science either formally or completely such.

The extension and comprehension of speculative and practical knowledge is referred to by St. Thomas when he remarks:

fine ex parte scientis, et non ipsius scientiae. Quoniam si loquimur de fine ipsius scientiae ipse est etiam practica ex fine: quoniam finis ejus est edificatio." Cajetan, *In Summam Theol.*, I., q. 14, a. 16.

"knowledge can be called speculative in relation to the things known, which are not operable by the knower."¹⁴ The most frequent conclusion drawn from this observation regards the root of the practical as consisting in the power to produce the operable. This is possible of grave misinterpretation. If the power of the knower be the principle of difference of the speculative and practical within the genus of understanding, then knowledge will be the one or the other purely by reason of extrinsic denomination. John of St. Thomas exposes the result: "all knowledge would then be in itself formally speculative." The intelligence would be incapable of representing the contingent as contingent. For, the concern of the speculative is with the necessary, the essential nature of things; of the practical, with the possible. If all knowledge were speculative, all would be necessary. The power of execution would be itself impossible.¹⁵

The object of practical knowledge is constituted by the operable. In itself the operable is characterized by the traits of contingency and composition, the former resultant of the latter. The necessary that is so entirely and without qualification is in no way operable, cannot be the object of practical knowledge, cannot be made. Only God fulfills this requirement absolutely; so is it said that His knowledge of Himself is speculative in nature, not practical.¹⁶ In all else, all creatures, there is composition of some sort, at least of essence and existence, and hence all are possible objects of practical knowledge. In each can be distinguished the material element, taking material in its wide sense to designate the subject or determinable part, and the formal element or determining factor. As recess is made from the pure immateriality of God to beings properly material of their very nature, the objects become

¹⁴ " . . . aliqua scientia potest dici speculativa . . . ex parte rerum scitarum quae non sunt operabiles a sciente, sicut est scientia hominis de rebus naturalibus vel divinis." *Summa Theol.*, I, q. 14, a. 16. Cf. *I Ethic.*, lect. 1, n. 1.

¹⁵ *Cursus Theol.*, t. I, disp. 2, a. 10, n. 4.

¹⁶ *Summa Theol.*, I, q. 14, a. 16.

more and more operable as involving increased composition and a greater degree of contingency. Angels and separated souls have at very least an extrinsic physical contingency as not having their existence essentially. Material beings have an intrinsic physical contingency flowing from the compositive principles of their essence, matter and form, and of their becoming, matter, form and privation. From this can be seen the close relation between the practical and the contingent. It is further evident that the object of the practical is less abstract, less immaterial than that of the speculative. The truth of the latter is attained by abstracting from actual existence. The end of the former is in existence, to bring about an existent work or deed. The tendencies of each are in fact opposed, one toward the necessary, the other to the contingent. As contingency qualifies the object in increasing degree the more operable it becomes and, according to St. Thomas, of less interest speculatively as having little of fixed verity.¹⁷

It is from this order of the practical to the real that can be resolved the problem of the root of the practical. The operable by definition involves order to act. The act to which it is thus ordered and which is prior and principle to the operable as such is the act of the appetite toward the good as good. It is by order to that act that the operable derives its specification. Hence, it is the actuality on the part of the subject which is the appetite of good that constitutes the root of the practical, the good diffusive of itself. Not the power of the subject to make or to do but the goodness of the subject, its abundance of actuality, first represents the operable as such. The power to communicate good is itself rooted in the goodness of the subject. The knower cannot have a practical knowledge of an operable because he cannot do or make it. Yet, the latter

¹⁷ "Aliquando illud verum quod utroque modo potest considerari non habet magnam utilitatem, nisi in quantum ordinatur ad opus; quia cum sit contingens, non habet fixam veritatem, sicut est consideratio de operibus virtutum. Et tunc talis consideratio, quamvis possit esse et speculativi et practici intellectus, tamen est principaliter practici intellectus." *III Sent.*, d. 23, q. 2, a. 3, sol. 2.

deficiency is one ultimately of goodness on his part. It is when understood in this context that the intention of the knower can be called determinative of the limits of practical science. "Operability," as Pichette remarks, "is not an absolute property of operable things."¹⁸ The root is formally on the part of the knower. The practical knowledge of the operable does not consist in its nature considered in itself.

While speculative knowledge is not of itself practical, there is nevertheless an important bearing of the one upon the other. By reason of its object as operable, the practical depends upon the speculative. The concern of the practical is with order, with the relation of one thing to another, with means to an end. Ultimately, that order must rest upon the knowledge of things in their proper natures. Otherwise, as John of St. Thomas points out, the order and regulation of the practical reason will be made imperfectly.¹⁹ Hence it is that St. Thomas speaks of the practical as an extension of the speculative.²⁰ It is noteworthy that the meaning here is not of knowledge which is only formally practical or, as sometimes denominated, the speculatively practical, but of speculative knowledge as such. The metaphysical principle involved is that operation follows upon the nature or essence. The practical order must be built upon the speculative order and, while of many things a practical knowledge will suffice, it is impossible to depart from the speculative order entirely. The good as good is end and principle of the practical and hence not the intellect but the will; but, the will follows the intellect in the order of nature. It is the intellectual appetite.²¹ It is the teaching of St. Thomas that all sciences are to be referred to speculative science and ultimately to God:

That which is lovable only because of another is for the sake of that which is lovable for its own sake alone; because we cannot

¹⁸ Pichette, *op. cit.*, p. 61.

¹⁹ *Cursus Theol.*, t. 1, disp. 2, a. 10, n. 4.

²⁰ *Summa Theol.*, I, q. 79, a. 11. Cf. Pétrin, *op. cit.*, pp. 119-129.

²¹ *Summa Theol.*, I, q. 78, a. 1, ad 3; q. 80, a. 1; q. 81, a. 1.

go on indefinitely in the appetite of nature, since then nature's desire would be in vain, for it is impossible to pass through an infinite number of things. Now all practical sciences, arts and powers are lovable only for the sake of something else, since their end is not knowledge, but work. But speculative sciences are lovable for their own sake, for their end is knowledge itself. Nor can we find any action in human life that is not directed to some other end, with the exception of speculative consideration. . . . Accordingly, the practical arts are directed to the speculative arts, and again every human operation to intellectual speculation, as its end. Now, in all sciences and arts that are mutually ordered, the last end seems to be the one from which others take their rules and principles. . . . And such is the relation of first philosophy to other speculative sciences, for all others depend thereon, since they derive their principles from it, and are directed by it in defending those principles; and moreover first philosophy is wholly directed to the knowledge of God as its last end.²²

The inferiority of the practical to the speculative as they exist in man is further demonstrated in its greater dependence upon the faculties of sense. Both pertain to the rational part of the soul, because each is rational by its very essence. Thus they are distinguished from the powers of the irrational part of the soul, both appetitive and cognitive, which are rational by participating in the rationality of reason. One of these latter is of considerable importance to the operation of the practical and serves to illustrate its dependence on the senses and the ground therefor. This is the sense faculty called the *vis cogitativa*, the estimative power or particular reason.

As Robert Brennan explains:

According to the Thomistic interpretation, man's intellect does not grasp singulars directly, but by an indirect movement wherein it returns to consider the phantasm from which it abstracted its universal idea and thereby comes to analyze the singular thing represented to analyze the phantasm. It is obvious that, for the achievement of such indirect knowledge, some kind of continuity must be effected between intellect, on the one side, and sense on the other. In the teaching of Aquinas, this mutual extension of material activities into the sphere of the immaterial, and of im-

²² III *Cont. Gent.*, c. 25.

material activities into the sphere of the material, is accomplished through the cogitative faculty or particular reason.²³

The necessity for such a power is radicated not in the singularity of the singulars but in their materiality, a condition opposed to the immateriality which is the principle of knowledge.

When the continuity to be established is of practical knowledge which terminates in the singular and particular, this cogitative power acts as the intermediary. Because the practical, even the formally and not completely practical, so tends it is constantly dependent upon it. The almost infinite variability of the singular necessitates an unceasing learning, for the formally practical is always in some measure inadequate. The universals that constitute it cannot overcome the indeterminacy of the contingents with which it is concerned. As Cardinal Cajetan points out, such universals are often "constructed," a work of the mind seeking unity rather than representative of reality.²⁴ This condition, however, does not necessarily militate against truth in the practical order.

Speculative truth consists in the conformity of the intellect to things. Practical truth, on the other hand, consists in the conformity of the intellect to right appetite. Thus the objects of speculation are true or false, either as corresponding to the things known or not. Ontologic being, things in reality, constitute the measure. The end of the practical is the good as good which is determined as such by its order to the appetite. Hence, the measure is constituted by the appetite, for the practical intellect performs its task by producing the good which the appetite desires. The truth, then, of the practical reason is achieved by attaining the good which the appetite desires; it achieves the true good if the appetite is rightly ordered to that good.²⁵

²³ R. Brennan, *Thomistic Psychology* (New York: Macmillan, 1941), p. 201. Cf. *Summa Theol.*, I, q. 86; a. 1; *De Verit.*, q. 10, a. 5; *III De Anima*, lect. 8.

²⁴ *In Summa Theol.*, I, q. 82, a. 3.

²⁵ "Dicit ergo, quod bonae et malae mentis, id est intellectus vel rationis, quae

In this relation it must be observed that the term 'practical truth' is to be applied only of those sciences which are completely practical, i. e., actually and existentially functioning in the production of the good. The formally practical sciences remain as such within the intellect and hence their truth is not completely practical but speculative. Such sciences are practical in their nature and proper object but speculative *secundum quid*, after a fashion. This does not mean that thus they coincide with the properly speculative. End for them is still the good as good; for the speculative, truth. Such is the foundation of the essential division of sciences into speculative and practical intrinsically; the end of the scientist, by which practical conclusions are held speculatively, is extrinsic to the science as such.²⁶

Stress on the distinction between the speculative and the practical might lead to the conclusion that they represent distinct powers. This might be based on what has been said of the necessity of diverse powers for the perception of generically diverse objects. Such is the foundation for stipulating a cogitative faculty and such also is the basis for not making any real distinction between the speculative and the practical as powers of the soul. The latter, even as the former, revolves about a universal consideration of its object. The difference is one of end in function.²⁷

The two orders of intellectual knowledge are distinct in terms of their respective ends, objects, and in the mode proper to each. In recapitulation, the nature and the differences of

est speculativa et non practica, consistit simpliciter in vero et falso; ita scilicet quod verum absolutum est bonum ejus, et falsum absolutum est malum ipsius. Dicere enim verum et falsum est opus pertinens ad quemlibet intellectum. Sed bonum practici intellectus non est veritas absoluta, sed veritas 'confesse se habens,' id est concorditer ad appetitum rectum." *VI Ethic.*, lect. 2. Cf. *Summa Theol.*, I-II, q. 57, a. 5, ad 3.

²⁶ *Cursus Theol.*, t. 1, disp. 2, a. 10.

²⁷ "Dicendum est ergo, quod intellectus practicus principium quidem habet in universali consideratione, et secundum hoc est idem subjecto cum speculativo, sed terminatur ejus consideratio in particulari operabili." *VI Ethic.*, lect. 2, n. 1132. Cf. *Summa Theol.*, I, q. 14, a. 16; q. 79, a. 11.

the practical and the speculative can be thus delineated: For the latter, the end is knowledge, truth as the good of the mind; for the former, the end is a work to be done or made, good as good, as ordered to the appetite. The speculative remains within the intellect itself entirely; the practical, even the formally and not perfectly practical, has an order to that which is outside the mind, to the good of the appetite. The object of the speculative is measured by reality, its truth consists in conformity to the thing; the object of the practical is measured by the appetite, its truth depends ultimately on that appetite being rectified to the order of God. The practical depends upon the speculative in principle and end; all practical sciences must be referred necessarily to the speculative as defending and terminating them. The speculative is concerned with the universal, increases in dignity and certitude as it grows more abstract and advances in degree of immateriality. The practical consists ultimately in application to the individual, is resolved by operation in the particular, finds more room for exercise as matter enters into the object considered. So, absolutely, the knowledge of the particular adds nothing to the speculative penetration of the universal and necessary. The practical, on the other hand, is under constant compulsion to the particular since it is concerned with the possible and the contingent.

ii. *The Practical in Dewey*

The identity of the Thomistic analysis of the practical with that made by John Dewey is striking despite differences in vocabulary. It is the more striking in the face of Dewey's denial of the speculative, since this left room for the introduction of arbitrary features that might have obscured or even completely hidden the basic elements of the practical. The instrumentalist theory of inquiry and of truth are forthright, and almost bare, expositions of the nature and functioning of the practical. Paradoxically, these considerations thus constitute the nearly unique example in Dewey's thought of

speculation properly so-called, attaining to and, in fact, tenaciously maintaining a reality in terms of its proper nature. Unfortunately, although perhaps to be expected, the speculative function of the mind does not fare as well in Dewey's hands and his criticisms are in major part rendered inept by initial distortion.

The theory of inquiry, as proposed by Dr. Dewey, makes explicit the steps and factors entering into the exercise of the practical function of the intellect. In the course of this "natural history of thinking," some of the elements of cognitive psychology are given definition from an exclusively practical viewpoint. The nature and conditions of the practical are evident in the following summary, made for the most part in Dewey's own words:

1. The context of thinking:

. . . the two limits of every unit of thinking are a perplexed, troubled, or confused situation at the beginning and a cleared up, unified, resolved situation at the close. The first of these situations may be called *pre-reflective*. It sets the problem to be solved; out of it grows the question that reflection has to answer. In the final situation the doubt has been dispelled; the situation is *post-reflective*; there results a direct experience of mastery, satisfaction, enjoyment.²⁸

2. The states of thinking:

In between, as states of thinking, are (1) suggestions, in which the mind leaps forward to a possible solution; (2) an intellectualization of the difficulty or perplexity that has been *felt* (directly experienced) into a problem to be solved, a question for which the answer must be sought; (3) the use of one suggestion after another as a leading idea, or *hypothesis*, to initiate and guide observations and other operations in collection of factual material; (4) the mental elaboration of the idea or supposition (reasoning, in the sense in which reasoning is a part, not the whole of inference); and (5) testing of the hypothesis by overt or imaginative action.²⁹

²⁸ J. Dewey, *How We Think* (Boston: Heath, 1933), p. 106. Italics in text.

²⁹ *Ibid.*, p. 107. Italics in text.

3. Restricting discussion, for the moment, to the inner traits of inquiry, the following might be mentioned as outstanding:

a) The source of thinking is doubt, defined objectively.

The peculiar quality of what pervades the given materials, constituting them a situation, is not just uncertainty at large; it is a unique doubtfulness which makes that situation to be just and only the situation it is. . . . It is the situation that has these traits. We are doubtful because the situation is inherently doubtful.³⁰

b) The inquiry is evoked and regulated by the problematic situation.

The nature of the problem fixes the end of thought and the end controls the process of thinking.³¹

c) The idea functions as a suggestion, as a plan of action.

An idea is first of all an anticipation of something that may happen; it marks a possibility. . . . The suggestion becomes an idea when it is examined with reference to its functional fitness; its capacity as a means of resolving the situation.³² The fact is that an idea, intellectually, cannot be defined by its structure, but only by its function and use.³³

d) The status of facts and ideas is defined operationally.

Observed facts in their office of locating and describing the problem are existential; ideational subject-matter is non-existential.³⁴

e) Reasoning as science is concerned with relations.

In science, since meanings are determined on the ground of their relation as meanings to one another, relations become the objects of inquiry and qualities are relegated to a secondary status.³⁵ The scientific definition is founded, not on directly perceived qualities nor on directly useful properties, but on the way in which certain things are causally related to other things, i. e., it denotes a relation.³⁶

³⁰ J. Dewey, *Logic* (New York: Holt, 1939), p. 105.

³¹ *How We Think*, p. 15.

³² *Logic*, p. 109.

³³ *How We Think*, p. 136.

³⁴ *Logic*, p. 112. Cf. *ibid.*, pp. 111, 118 and *passim*; *How We Think*, pp. 220-230.

³⁵ *Logic*, p. 116.

³⁶ *How We Think*, p. 163.

f) Since the facts and meanings are operational in character, experiment is indispensable.

The operative force of both ideas and facts is thus practically recognized in the degree in which they are connected with experiment. Naming them 'operational' is but a theoretical recognition of what is involved when inquiry satisfies the conditions imposed by the necessity for experiment.³⁷ Sometimes direct observation furnishes corroboration. . . . In other cases, experiment is required; that is, conditions are deliberately arranged in accord with the requirements of an idea or hypothesis to see whether the results theoretically indicated by the idea actually occur.³⁸

g) The term of inquiry as cognitional is warranted assertability; as had, is consummatory experience.

The termination of inquiry, with respect to the procedures of inquiry that have led up to it, is a resolved situation whose *primary* status and value is cognitional. But the terminal material is also a directly had situation, and hence capable of treatment on its own account as an enriched experience.³⁹ That inquiry is related to doubt will, I suppose, be admitted. The admission carries with it an implication regarding the end of inquiry: *end* in both senses of the word, as end-in-view and as close or termination. If inquiry begins in doubt, it terminates in the institution of conditions which remove need for doubt. The latter state of affairs may be designated by the words *belief* and *knowledge*. . . . I prefer the words 'warranted assertibility.'

. . . the term 'warranted assertion' is preferred to the terms *belief* and *knowledge*. It is free from the ambiguity of these latter terms, and it involves reference to inquiry as that which warrants assertion. When knowledge is taken as a general abstract term related to inquiry in the abstract, it means 'warranted assertibility.' The use of a term that designates a potentiality rather than an actuality involves recognition that all special conclusions of special inquiries are parts of an enterprise that is continually renewed, or is a going concern.⁴⁰

³⁷ *Logic*, p. 114.

³⁸ *How We Think*, p. 114.

³⁹ J. Dewey, "Experience, Knowledge and Value: A Rejoinder," in P. Schlipp, ed., *The Philosophy of John Dewey* (Evanston: Northwestern University, 1939), Library of Living Philosophers, Vol. I, p. 563.

⁴⁰ *Logic*, p. 7.

That this is, and for the most part accurately, an analysis of the practical is, in the light of the treatment previously given, obvious enough. Elements of the practical as distinct from the speculative are made even more explicit than discussion of both simultaneously permitted. In Dewey we find, and without any twisting of the sense, the end, object, mode of knowing and, as we shall see more clearly, degree of truth proper to the practical order. Nonetheless, some further elaboration is necessary to make equally explicit the conclusions to be drawn.

The gloriously agonizing intellectual doubt of Descartes has here its most humiliating devolution to equivalence with a stubbed toe. But only apparently. The real tension giving birth to thought is not at all objective. Actually the situation becomes unsettled when appetite enters in, when the inquirer-to-be decides that the situation needs reconstruction. By throwing the emphasis upon the possible conditions giving rise to this volition, the necessary wilful act remains a not too well hidden secret. Radical voluntarism cannot be avoided.

From the beginning of pragmatism this objection has been made to its teaching and, in every instance, Dr. Dewey has met and defeated his opponent to his own and his followers' satisfaction. (His success might be taken as the reward earned by adoption of the exclusively practical; one of its major functions is to extricate from predicaments.) The reason has been failure to realize that the basis of distinction of the speculative from the practical is other than that which separates the formally practical from the completely practical. The former is based on the nature of the end intrinsic and proper to the speculative and to the practical, the latter on the intention of the knower and does not affect, except extrinsically, the end or nature of the science as such. Thus the whole thought of Dewey, and here his theory of inquiry, is of a practical nature. It matters not, to the intrinsic nature of the "science" he proposes, whether it be done or not "for the sport of it."⁴¹

⁴¹ This has been Dewey's frequent non-technical retort. Cf. "Experience, Knowl-

The problem, end controlling thought, is, in final analysis, one of good as good, related to the appetite. It is something to be done or made, an operation not a speculative truth. The object is a truth as operable. The goal of thinking is the end as end, in all its force, appetitive. This is again reflected in the term of inquiry; as cognitional, it pertains to the formally practical and as consummatory, to the completely practical.

While Dr. Dewey's analysis of the "natural history of thinking" tends to dislocate the cognitive side of practical knowledge from its relation to the appetite, the latter nevertheless does enter in. What is, in effect, the whole process of the institution of a problem save to answer the question: what do I want? In emphasizing the search for means the instrumentalist but asks: what can I get? Even the description of doubt is in affectional terminology; the "perplexity" and "troublesomeness" are "felt" and "unsatisfactory." Furthermore, the character of what knowledge there shall be is determined in part (and the more formal part) by current activity. And activity is of the will, a matter of appetite.⁴²

Once it is established that Dewey's pattern of inquiry is intrinsically practical, then all the other phases fall in place and become intelligible. In practical inquiry the idea is a plan for action as functionally defined. Facts and meanings are operationally conceived. The need for experiment is but the requirement of the practical for ultimate resolution in the singular and of constant recourse thereto. The outlook is forward and James' oft-uttered clarion call "of looking toward last things, fruits, consequences, facts,"⁴³ becomes understand-

edge and Value: A Rejoinder," *iam. cit.*, p. 528. Also *Experience and Nature* (Chicago: Open Court, 1925), p. 151.

⁴² "For had our selection been different, our attention differently directed, our knowledge would not have been the same." J. H. Randall and J. Buchler, *Philosophy: An Introduction* (New York: Barnes and Noble, 1942), p. 132. The context is of "ideas as instruments" explaining instrumentalism, the philosophy adopted by the authors.

⁴³ Columbia University Department of Philosophy, *Studies in the History of Ideas* (New York: Columbia, 1935), II, 363.

able even as applied to Dewey, if not ultimately more defensible in one than in the other.

Intelligible, too, becomes that problem so truly perplexing to students of pragmatism and instrumentalism since its origin with Peirce. What is truth? As Dr. Dewey has remarked:

The nature of truth given by the experimental and functional type of logic is completely a corollary from the nature of thinking and ideas. If the view held as to the latter is understood, the conception of truth follows as a matter of course.⁴⁴

Such is the case. Dr. Dewey rejects the "correspondence theory" of truth, that truth consists in the agreement of thought with reality. Equally positive is he that truth does not hide within the "coherence theory" which stresses the harmony of an idea with others. The former can be predicated on only a presentative theory of the manner of knowing. Such, in his mind, would obviate the whole necessity for inquiry. Why find out what is already known? ⁴⁵ The coherence theory stands self-condemned:

The elaboration and refinement of ideas to the uttermost still leaves us with an idea, and while a self-consistent idea stands a show of being true in a way in which an incoherent one does not, a self-consistent idea is still but an hypothesis, a candidate for truth.⁴⁶

The instrumentalist notion of truth is presented *via* the much-quoted illustration of the man in the wood. The problem is one of finding the way out and home. The correct idea will be "a practical plan of action which will lead to success." The truth of the idea "is evidenced in the successful meeting of a need." Therein lies the method of securing the correspondence, the agreement between idea and reality.

Now, one may say, my idea was right, it was in accord with the

⁴⁴ J. Dewey, *Reconstruction In Philosophy* (New York: Holt, 1920), p. 155.

⁴⁵ Cf. J. Dewey, *Essays in Experimental Logic* (Chicago: University of Chicago, 1916), pp. 231 ff.

⁴⁶ *Ibid.*

facts; it agrees with reality. That is to say, acted upon sincerely, it has led to the desired conclusion; it has, *through action*, worked out the state of things it contemplated and intended. The agreement, correspondence, is between purpose, plan and its own execution, fulfillment; between a map of a course constructed for the sake of guiding behavior and the result attained in acting upon the indications of the map. Just how does such agreement differ from success? ⁴⁷

Here, in all clarity, is manifested that what is sought is not speculative but practical truth. The conformity is not of the mind with the thing but of the latter with the mind. The measure is the mind and, in principle, the will by way of the mind. For, it is the end which regulates the problem and its solution from start to completion.

Yet, it must be remembered that even in practical truth there is the correspondence of things and mind, mind and things. It is not a correspondence of mind and thing in terms of the latter's nature but only of the operability, its possibility to fit in relationally and actively with other things toward the production of the end in view. The only truth it has is that of being so related, so operable. However, in statement it can be made to appear as a conformity of the mind with thing rather than a measure of the mind imposed upon the thing. Dr. Dewey sometimes does this when he is using "warranted assertibility" as his equivalent for truth. Certainly he so regards the practical truth terminating inquiry cognitively or in action as the only "truth" possible. Its quality as practical he recognizes and glories in:

It is said that the error of the pragmatist is to take the process by which truth is found as the one by which it is made. The claim of 'making truth' is treated as blasphemy against the very notion of truth; such are the consequences of venturing to translate the Latin 'verification' in to the English 'making true.' ⁴⁸

⁴⁷ *Ibid.* Italics in text.

⁴⁸ J. Ratner, ed., *The Philosophy of John Dewey* (New York: Holt, 1928), p. 198.

II. THE PRACTICAL AS A PHILOSOPHY

When from a solely practical knowledge and in terms exclusively thereof it is desired to construct (and this literally) a philosophy and in it embrace, at least apparently, more than an accumulation of facts and general norms of operation, the desired expansion must derive from another source. Human knowledge of the practical order cannot of itself provide a metaphysics, a cosmology, nor even more than a part of experimental psychology. Indeed, of itself it can offer no sufficient logical theory, regulative of its own development. For Aristotle and St. Thomas, admitting the existence and validity of the speculative, the problem was simply one of the application of the logic developed in the *Organon*. The difference between the speculative and the practical was not one of being; the mind in both operated intentionally and proceeded from apprehension to judgment to the conclusion of reasoning. In practical affairs, insofar as science of them was possible, the end to be sought performed the regulative tasks that in speculative matters was undertaken by first principles.⁴⁹ Certainty was possible in each and the norms of demonstrative logic applicable. The moral sciences, ethics and politics, were sciences in the strict sense of the word.

Science, so taken, deals with the necessary, the universal, and concludes to the certain. Not all affairs are of this nature nor knowledge of them more than of probability. To deal with things not known in their proper natures, and hence not with necessity and certitude, is the office of dialectics. It is not logic as that science is regulative of demonstration. It is logic in being of the rational processes and in amplitude of subject-matter. Like philosophy it extends to all being. Because of its importance in evaluating Dewey's philosophic enterprise a more extended consideration of the nature of dialectic is apropos.

⁴⁹ Cf. *Summa Theol.*, II-II, q. 23, a. 7, ad 2; q. 47, a. 6; I-II, q. 13, a. 3; VI *Ethic.*, lect. 4.

i. *Science and Dialectic*

Aristotelian logic concords with a metaphysical conception whereby essence and substance are possessed of ontological validity. Demonstrative logic, normative of the reasoning processes by which true science can be attained, is indissolubly linked with the conviction that each existent has a nature or essence which is proper to it. The certitude and necessity which qualify demonstrated conclusions derive from the real necessity by which things are what they are and are exclusive of what they are not.

Equally true is it that Aristotelian logic presupposes a mind capable of grasping reality. The conditions and rules posited for demonstration would be indeed the by-laws of a club of ghosts were it denied perfect correspondence maintains between the principles of things and the principles of knowledge. The epistemological validity of primary notions and principles and the ontologic presence of specific natures together make possible and defensible a theory of demonstrated truths. Simply, this means the recognition of the principles of identity and contradiction as holding in both the entitative and logical orders. Otherwise, the demand by the Stagirite that demonstrative science proceed from premises qualified as true, first and immediate, causal of the conclusion, and that the medium of the reasoning process be proper of the subject, an essential quality or "passion," is rendered meaningless and all Aristotelian logical theory can be denominated as merely formal and, in Dewey's word, irrelevant.

While *scire*, science characterized by unqualified certitude, is reserved for knowledge attained by strict demonstration, reasoning is not therein exclusively circumscribed. St. Thomas, commenting upon Aristotle's *Posterior Analytics*, notes a similarity between the operations of reasoning and those of nature. In each case can be discerned a threefold diversity. In the realm of nature certain things act as they do from necessity and always; others pursue a definite course for the most part;

and hence, when they fail to do so, constitute the third classification. Likewise in the processes of reasoning, the demonstrative syllogism yields necessary truth, dialectic concludes to probability, and sophistic discourse reaps fruit in error.⁵⁰

In maintaining the primacy of demonstrative reasoning and focusing upon it their chief interest, neither Aristotle nor St. Thomas denies or neglects the usefulness and importance of the dialectical procedure. In pursuance of his oft-repeated methodological axiom that science must proceed from the more known to the less, Aristotle acknowledges in theory and in practice the efficacy of dialectics to initiate and further scientific investigation. Theoretically he says of dialectical reasoning that "it is useful for the study of the philosophical sciences, because the ability to raise searching difficulties on both sides of a subject will make us detect more easily the truth and error about the several points that arise"; it is "a process of criticism wherein lies the path to the principles of all inquiries."⁵¹ Practical illustration is easily afforded by a glance at the opening chapters of his treatises on the soul, on physics, on ethics. In each instance the Stagirite makes a beginning by enumerating and discussing the most common principles of the subject to be investigated, the common opinions of men and of other philosophers concerning it.⁵²

In the fourth book of the *Metaphysics* Aristotle compares the philosopher, the dialectician and the sophist. "For sophistic and dialectic turn on the same class of things as philosophy, but this differs from dialectic in the nature of the faculty required and from the sophistic in the respect of the purpose of the philosophic life. Dialectic is merely critical while philos-

⁵⁰ *I Poster.*, lect. 1.

⁵¹ *I Topic.*, c. 1, 101 A34; c. 2, 101 B3.

⁵² Thus St. Thomas notes in Aristotle's ethical treatise that, in determining the proper constitutive of human happiness, the philosopher enumerates the various applicants for the role as they have been defended by other thinkers and in practical living. *I Ethic.*, lect. 4. The *Physics* opens with a prolonged examination of the possible principles of movable being as proposed by such predecessors as Anaxagoras, Milissa, Plato, etc. *I Physic.*, cc. 1-4.

ophy claims to know, and sophistic is what appears to be philosophy but is not."⁵³

In his commentary upon Aristotle's teaching, St. Thomas elaborates the Stagirite's meaning. Philosopher and dialectician "convene in this, that dialecticians treat of all things without exception." Since this requires a unity of subject-matter and "all things do not convene except in being, it is manifest that the matter of dialectics is being and those things which are of being, about all of which the philosopher also treats."

Yet they differ. The philosopher is distinctive in power, having greater virtue in his consideration than the dialectician. He proceeds demonstratively and knows with certitude, whereas the dialectician proceeds from probable premisses and yields not science but opinion. Reason for this is found in two-fold nature of being: being, namely, of reason and being of nature. Being of reason is properly denominated of those intentions of the mind which it constructs concerning the things it considers; such are genus, species and similar intentions which are not indeed to be found as such in the realm of nature but which follow upon the consideration of the mind. The subject of logic is properly of this type of being, that of reason. Such intelligible intentions can, however, be made equal to the entities of nature since all natural things fall under the consideration of the mind. And hence the subject of logic extends to all things of which natural being may be predicated. Whence it may be concluded that the subject of logic is equal to that of philosophy which proceeds from the principles of this science to prove those qualifications which are common to being as such. The dialectician proceeds from the intentions of reason which are of themselves extraneous to the nature of things. Whence is dialectics tentative since to tend is proper to such a procedure.⁵⁴

From these statements and analyses emerges a clearer conception of what is here intended by the term *dialectics*. The most general view would equate dialectic and argument. As an art of debate it is popularly associated with Plato and the

⁵³ *IV Metaphys.*, c. 2, 1004 A33-1004 B26.

⁵⁴ *IV Metaphys.*, lect. 4.

Platonic dialogues; as a special philosophical doctrine, with the thesis-antithesis-synthesis of Hegel and the dialectical materialism of Marx and Engels. In the early stages of his philosophical career Mortimer Adler confined dialectic "entirely to the universe of discourse."⁵⁵ It, for him then, embraced philosophy and theology and was significant of the undemonstrative and tentative nature of these disciplines. While he has since repudiated the latter doctrine,⁵⁶ his former analysis of dialectic accords in great part with that of Aristotle and St. Thomas. In the minds of the latter dialectic is a rational process. It must be noted, however, that it is not identified with the whole field of logic. As Robert Brennan points out: "There are no grounds for it in the authentic tradition of Aristotle, where the term is restricted to mean those forms of reasoning which proceed from opinion or probability."⁵⁷ Likewise, the linking of dialectics with sophistics may react to the depreciation of the former. A dialectician performs a real and valuable function and is so-called by reason of the development of the faculty to perform that function. The sophist, on the other hand, is so denominated by reason of his purpose in arguing, namely to appear wise whereas in fact he is not.⁵⁸

The central note, discriminative of dialectic from other rational procedures, is best stated negatively. Dialectic is not concerned with proper principles. And this negative approach is preferred even though a positive statement can be made in the words of St. Thomas. According to the Angelic Doctor: "Dialectics derives from common principles, arguing not only from the common principles of reason but of things."⁵⁹ Yet, not every argument from common principles is thereby dialectical. All sciences communicate in common principles insofar as all make use of them in their reasoning processes as prin-

⁵⁵ M. Adler, *Dialectic* (New York: Harcourt, Brace, 1927), p. 243.

⁵⁶ E. g., M. Adler, *What Man Has Made of Man* (New York: Longmans, 1937).

⁵⁷ R. Brennan, O. P., "The Mansions of Thomistic Philosophy," *The Thomist*, I (1939), 66.

⁵⁸ *I Rhet.*, c. 1, 1355 B15-23.

⁵⁹ *I Poster.*, lect. 19.

ciples, as media in demonstration. The subject of first philosophy or metaphysics can be denominated common since being is the most universal of conceptions. Yet from it is derived a demonstrative science concerned with the characteristics proper to being, consequent upon its very nature. Equally, the subject of logic, rational being as contrasted with ontologic real being, extends to all things as subjects of the mind's operations. Nevertheless, demonstrative logic can make no use of such common intentions to reach certain conclusions concerning the subject matters of the several sciences of nature. Dialectics is under no such restraint and, in forwarding its arguments, makes use both of the common principles of the mind and of reality.

By way of illustration of the dialectical process, Aristotle and St. Thomas offer the following:

1) The dialectician argues that hatred is an act of the concupiscible appetite even as love, since contraries are of the same genus. The medium of proof is not derived from the proper nature of hatred but from an extraneous and logical principle.⁶⁰

2) Arguing against possibility of an actually infinite sensible body, Aristotle proffers as dialectical reasons: "If bounded by a surface is the definition of body there cannot be an infinite body either intelligible or sensible. Nor can number taken in abstraction be infinite, for number or that which has number is numerable. If then the numerable can be numbered, it would also be possible to go through the infinite." St. Thomas explains that both reasons are probable, proceeding from common principles, since it is not the nature of body that it must be terminated by a surface and number adds to the nature of multitude the notion of measure which is extrinsic to it as such.⁶¹

3) Aristotle refers to Bryson's famous method of squaring the circle. St. Thomas expounds its dialectical character.

⁶⁰ *Ibid.*

⁶¹ *III Physic.*, c. 5, 204 B5-9; St. Thomas, *in loco*, lect. 7.

Bryson's argument proceeded thus: In every genus wherein there is to be found something to which there is given a greater and a less there is also given an equal. In the genus of squares there can be found one less than a circle, another greater, and hence there must be one equal thereto. Again the medium of the proffered "proof" is a common and logical principle; "for equal, greater and less exceed the genus of the square and circle."⁶²

In each of these, as in every instance of dialectical reasoning, the argument rests upon a principle that is not proper to the subject involved. From this condition stems the characteristics of the dialectical mode and its opposition to demonstrative science. The latter, as drawing its cogency from the necessary connection between the subject of demonstration and its proper passion, cannot proceed from principles extraneous to that subject. The principle offered in dialectical proof is always so extrinsic. Stated in another fashion, the principles of demonstrative science are of the same genus as the conclusion; those of the dialectical argument may be of a different genus. Again, from the same source derives the universal extension of dialectics. To say that it extends to all subject matters is but to recognize that its adequate object is being, whether logical or ontological. Thus, argument from common principles can embrace all actual and possible entities; for, only the proper principles of a subject can restrict the science of that subject. By its proper passion any being is circumscribed and defined as specific, as such a being. So Aristotle and St. Thomas, as already shown, posit a resemblance between the dialectician and the philosopher. Finally, for the same reason dialectics is tentative, tending toward certainty in more or less degree, but never of itself yielding such certainty as can only follow natural or real necessity. While not inherently ordained to error, dialectical reason must be satisfied to achieve the probability which is its most conspicuous mark.⁶³

⁶² *I Poster.*, c. 9, 75 B40; St. Thomas, *in loco*, lect. 16.

⁶³ *I Poster.*, lect. 14, 19; *I Rhet.*, c. 1, 1354 A1-12; *I Top.*, c. 1, 100 A30.

That Aristotle and St. Thomas employed dialectics and recognized its value has already been indicated. A closer examination is necessary to determine the place held by dialectical reasoning within the framework of their systems of thought. Logic as a science and acquired habit is an artifactive construct reared upon the natural inclination or aptitude by which men tend to proceed in an orderly manner in their reasoning; it is perfective of so-called natural logic. As an art and science it is directive of the act of reason whereby a man may proceed easily, in an orderly fashion, and without error. As such, logic can be subjected to a two-fold consideration: as *docens*, in which are taught, declared, proved and explained the laws of logical thinking as a mode of knowing; as *utens*, in which these laws are actually applied to the several sciences, and, indeed, as exemplified in the very science of logic itself.⁶⁴

The nature and end of logic are most perfectly realized in demonstrative logic but the definition and division given also pertain to dialectic as a part of logic. St. Thomas explicitly distinguishes a *dialectica docens* and *utens*. He does, in fact, go so far as to say that the former, *dialectica docens*, can constitute a science in the demonstrative sense since it is developed from the proper principles of the logical intentions involved. As applied, however, or *utens*, dialectics can conclude only to probability and hence fails of the full definition of science. In concluding his observations on this condition of dialectics, St. Thomas emphasizes yet again that distinctive note of dialectical reasoning, the use of logical principles to adduce conclusions of the real order.

In demonstrative logic only the doctrine pertains to logic, the use to philosophy and to other particular sciences concerned with the things of nature. Hence the use of demonstrative logic consists in using the principles of things concerning which the demonstration is evolved and which belong to the ontologic sciences, not in the use of logical intentions. It is evident, therefore, that some parts

⁶⁴ IV *Metaphys.*, lect. 4, n. 576; *Boet. de Trin.*, q. 6, a. 4, qcla. 1. Cf. Cajetan, *In Summam Theol.*, I-II, q. 54, a. 4.

of logic pertain to it as both doctrine and for use, as do dialectics and sophistics; while another part only as a doctrine and not for use, as does demonstrative logic.⁶⁵

The development of dialectics as a doctrine, as *docens*, is to be found in the books constituting the *Topics* of Aristotle. Unfortunately no commentary on this work directly was done by St. Thomas. The usefulness of dialectics is indicated by Aristotle in his discussion of likeness and difference.⁶⁶ This applicability is threefold: "with a view both to inductive arguments and to hypothetical reasons, and also with a view to the rendering of definitions." So, as to the first, utility in induction, dialectics finds place especially in those works which deal with nature in its more concrete forms; in the *Historia Animalium*, *De Partibus Animalium*, *De Generatione Animalium*, the *Parva Naturalia*, *Meteorologia*, etc. Yet in all these dialectic performs, after all, a minor role since demonstrative science, even though inductive, is the aim.⁶⁷ St. Thomas makes use of dialectics to provide hypothetical reasoning as a pedagogical device.⁶⁸ But it is chiefly "with a view to the rendering of definitions" that the Stagirite and the Angelic Doctor employ dialectical reasoning, as it is "a process of criticism wherein lies the path to the principles of all inquiries."⁶⁹ The proper resolution of the dialectical movement is to be found in such a judgment, one by which is grasped the essential nature of things. Further and similar use is incident within the individual sciences as exemplified in the previously given illustrations.⁷⁰ In comparison with the extent of their demonstrative science, dialectics found but small play in the doctrines of Aristotle and his medieval exponent. They were concerned, primarily and finally, to expose those truths which could be known with

⁶⁵ *IV Metaphys.*, lect. 4, n. 577. Cf. *Boet. de Trin.*, q. 6, a. 1.

⁶⁶ *I Top.*, c. 15, 108 B8-33.

⁶⁷ *I De. Part. Animal.*, c. 1, 639 A15-20; 639 B8 ff.; 640 A18 ff.; 642 A31-B3; c. 2, 645 A35; *I De Gen. Animal.*, c. 17.

⁶⁸ *I Poster.*, lect. 19.

⁶⁹ *Supra*, n. 52.

⁷⁰ Cf. *I Poster.*, cc. 19, 22; *I Top.*, c. 2, 101 A37-B3

certainty. In whatever field to which their inquiry reached out, this was their unfailing aim. Only upon the basis of definitively demonstrated truths could they construct science as that word was for and by them defined. Only such science could yield the wisdom to which the very name philosophy proclaimed devotion.

ii. *The Dialectic of Practice*

That the expanding principle of Dr. Dewey's espousal of the practical should be dialectics is appropriate. It was, first of all, timely and kept instrumentalism in the fashionable mode. The scientists whose method Dewey strives so hard to emulate have, in greater part, adopted the dialectical procedure. It is consonant with their concern over the common and extraneous principles of things, with quantity, structure, function, and the like. Revolving about probability, it relieves them of defending the provisional nature of their conclusions or theories. Dialectic is modern, an appellation much beloved by Dewey. As John A. Oesterle puts it: "The essential condition of modern communication is first to relapse exclusively into dialectic. . . ." ⁷¹

Further grounds of convenience are evident in the comparison of the nature of dialectics with the practical. As dialectic is not concerned with the proper natures of things, so the practical passes over these in favor of relationships of operability. From another aspect, dialectic proceeds by means of principles extraneous to the nature of the thing discussed. Operability is extrinsic to the being; the measure is not of an essence but of a thing to an end. In demonstrative science there is, and must be, maintained a homogeneity of principles and conclusion. Dialectics imposes a logical unity and the practical an operable one. As St. Thomas points out, dialectics of itself is tendential.⁷² It requires resolution and

⁷¹ J. Oesterle, "Another Approach to the Problem of Meaning," *The Thomist*, VII (1944), 233 ff.

⁷² *I Poster.*, lect. 14.

finds it, properly, in the judgment of demonstrative science. The practical by definition tends to the end and is resolved in operation concerning it. Left to itself and unresolved the movement of dialectic is without term. Given no ultimate end the practical exhibits the same characteristic.

Since the adequate object of dialectics is being, real and rational, the adoption of it expands the possible subject matter as far as can be done. Not that Dewey had a choice in this instance; if he was to think at all, he had to do so demonstratively or dialectically (or sophistically). But, whereas demonstrative logic as *utens* or applied is severely restricted in its extension to the necessary and proper and, moreover, cannot employ its own principles as such in cogent demonstration, dialectics is under no such compulsion. In that, it apes philosophy itself and brings, like it, all subject matters and all sciences under its sway.

It is, in fact, of too wide an extension for Dewey. A restrictive principle is provided by the practical. Dialectic preoccupation gives Dewey, should he so wish, the chance of developing quite another philosophy. The scope of dialectic embraces all being and, of itself, gives no limitation to the type of philosophic thought in which it may be employed. Presenting, as it does, the contradictory solutions to any problem that may be raised, the dialectician may freely adopt either as his own. He may even adopt both and maintain both at least to the point short of that wherein the innate contradiction is explicated. Even here, since in natural change, should it be the subject, the same matter may be, but successively, substrate of contraries, the dialectician can maintain that each of his solutions apply; provided no claim is made of identity of time, aspect and subject. Add nominalism to the amalgam and this necessity is one solely of thought or discourse.

Upon the dialectic the practical operates as a restrictive principle. Only those solutions dialectically possible of extension will be actually chosen which meet the requirements of operability. Hence, the field is narrowed, for the dialectic of

itself includes both the speculative and the practical. In the milieu of modern materialism this restriction is, however, of itself an extension. The dialectic of materialism, until the advent of pragmatism, was restrained by either the conception of matter or the necessity of reduction to sensation. The operable manages to embrace not merely the matter of absolute materialism and the sensations of the positivist, but also those realities which to both were either inexplicable mysteries or illusions: human actions and values. So Dewey could, and did, invade the moral field and not in the spirit (at any rate) of destruction but with propriety since that field is properly of operables as such.

The dialectic of practice is evidenced in Dewey's philosophic program, in his major philosophic doctrines, in particular tenets, and in the positions ascribed his thought by students of it.

According to Professor Sidney Hook, Dewey proposes to philosophers "that they directly confront the major problems and beliefs of our society, make explicit our value assumptions, project alternatives of social choice, investigate methods of investigation, formulate a theory of inquiry that may aid in overcoming intellectual confusions, and furnish, if possible, intelligent grounds of action in meeting the times and its troubles."⁷³ In Hook's estimation Dewey is himself most eminently successful in the carrying out of his own program. Professor Hook speaks of "the fresh perspectives of his thought," of the fact that "there is hardly a phase of American thought to which he has not made some contribution, hardly an aspect of American life which he has left uninterpreted. His influence has extended to the schools, the courts, the laboratories, the labor movement, and the politics of the nation."⁷⁴

A question may be raised. May not this, at least in part, be due to the fact that Dewey's own philosophy has no principle

⁷³ S. Hook, *An Intellectual Portrait* (New York: John Day, 1939), p. 37.

⁷⁴ *Ibid.*, p. 4.

of fertility, save the individual will, and must constantly seek particular situations to hew and hammer into the perspective of the practical? All philosophers striving to know more than the fictional conditions of a world of their own imaginings must confront reality and endeavor to make explicit its intelligibility. Could it be that in Dewey's case the confrontation of "problems and beliefs" derives from an added necessity of a development largely possible only by way of dialectical opposition in choice of alternatives? To confront truly philosophical problems philosophically requires affirmation of the speculative function of the intellect; to the exclusively practical outlook they can appear only "diseased formulations." Psychology, education, law, economics, sociology and religion, persistent foci of Dewey's interest, do admit of practical exploitation. Metaphysics, the philosophy of quantity, cosmology cannot be moored in the practical; rather the reverse. But, once given by other philosophic efforts, developed on other grounds, they can be subjected to criticism by a dialectic of practice.

In this realization lies the answer to the absence of any "system" to Dewey's thought. Dewey himself recognizes system making as foreign to the genius of his enterprise and Hook extols this characteristic as a virtue of instrumentalism. Rather, the narrowness and particularism of the practical viewpoint, with its concern about the individual, the operable, the relative, the experimental, and all in the measure of the natural goodness and power of man, prevents any ultimate integration or synthesis. The most that can be accomplished in the formally but incompletely practical order is the proffering of a series of hypotheses possible of application to a series of particular problems; any other eventuation is predicated upon the adoption of a regulative ultimate end, which Dewey rejects. Professor W. H. Werkmeister indicates the dialectical source of the deficiency of system: "Only in the broad sense of defending from a variety of angles a somewhat loosely defined general point of view can Dewey at all be regarded as sys-

tematic.”⁷⁵ The vantage point from which Dewey perceives reality and conceives his philosophy of it is loosely defined; the effort of his life has been to generalize it. Unfortunately, it is too tight and restricted a point in itself.

In *Reconstruction In Philosophy*, first issued in 1920, Dr. Dewey develops his program in more detail. Introducing its republication, in 1949,⁷⁶ he notes the intervening years have served only to increase the urgency of that program’s undertaking; to speak of its fulfillment would negate its nature. He bewails the widespread revival of interest in the philosophic systems of the past and the renewed search for the fixed and certain. These constitute, to his mind, a withdrawal from the philosopher’s true problems: “those growing out of the changes going on with ever-increasing rapidity, over an ever-increasing human-geographical range, and with ever-deepening intensity of penetration.”⁷⁷

To meet the situation is, in great part, the work of intelligence. The latter must in no sense be regarded as the “reason,” or “pure intellect,” or the highest organ or faculty of tradition apt to the grasp of ultimate truths. “It is a shorthand designation for great and ever-growing methods of observation, experiment and reflective reasoning. . . .”⁷⁸ It is, in brief, a dialectic of practice.

The text itself, unchanged after the quarter century, indicates the avenues of application of intelligence in philosophy in general, in changing conceptions of experience and reason, the ideal and the real, in reconstructing logic, morals, and social philosophy. It is a dialectical development of Dewey’s position with regard to cosmology, ethics, even, in a measure, metaphysics, with the traditional viewpoints ossified into lifeless rigidity yet withal providing a great deal of the subject matter to be fitted, literally, into the forms and shapes of

⁷⁵ W. H. Werkmeister, *A Philosophy of Science* (New York: Harper, 1940), p. 544.

⁷⁶ J. Dewey, *Reconstruction In Philosophy* (Boston: Beacon, 1949), pp. v-xli.

⁷⁷ *Ibid.*, p. vii.

⁷⁸ *Ibid.*, p. viii.

the practical taken as the interpretation of the "methods of science." *Reconstruction* is a work of craftsmanship, taking the bricks and timbers provided by the past and redispersing them at will; the while leaving open, and indeed pointing the way, for other hands and other wills to make yet other dispositions.

Thus the world of ancient and medieval philosophy was "a closed world, a world consisting internally of a limited number of fixed forms and having definite boundaries externally. The world of modern science is an open world, a world varying indefinitely without possibility of assignable limit in its internal make-up, a world stretching beyond any assignable bounds externally."⁷⁹ Admitting the wide acceptance of the contrast, may it not be asked whence the contrast derives its force? Neither modern science, especially as Dewey diagnoses its method, nor a philosophy of the practical can deliver a conception of any "world." They can but enumerate changes and describe the sequential order involved. To excogitate worlds is to clothe their hypothesis with gratuitous reality not subject to their methods of inquiry or it is to credit them with a mystical insight more proper to the seer. May it be noted that Dewey's "world" is entirely negative in character, a denial of each of the attributes of the Greek and medieval world; "open," "varying," "boundless" give an exciting vocabulary to an essential agnosticism.

A more honest comparison is that between ancient philosophy and modern thought in their attitude toward change. In Dewey's words: "The world in which even the most intelligent men of olden times thought they lived was a fixed world, a realm where changes went on only within immutable limits of rest and permanence, and a world where the fixed and unmoving was . . . higher in quality and authority than the moving and altering."⁸⁰ Again, development is by denial, here implied and later made explicit. Further, there is thus given to the consideration of change the perspective and authority

⁷⁹ *Ibid.*, p. 54.

⁸⁰ *Ibid.*

of philosophy. No charge is made, although their efforts are belittled, that the philosophers of olden times failed to recognize change. They were, in fact, concerned to give it its place and were devoted to the task of the intelligibility of reality, not its manipulability. The contrast serves to make the projects identical and arrogate to the technicians of control the dignity of the search for wisdom.

The book may serve to raise the fundamental question. The theory of practice must be located within a context of reality known speculatively, a knowledge of what is; otherwise it is but a sprawling bit of jetsam floating in an uncharted sea. The reason for this necessity briefly and ultimately is *agere sequitur esse*. Apart from this context the practical man can rise only to rules of conduct whether of life or of the production of artifacts. His definitions of realities are limited strictly to his perceptions or hypotheses of their operability. No grounds are given by the exclusively practical for formulating theories as to what the world is, what is man, what is knowledge, what is practical knowledge itself. The intelligibility of reality is to be plumbed no deeper than its possible control. The traditional question that distinguished the philosopher, *quid est*, what is it, no longer should be asked. The question now properly is *how*. Dewey has consistently recognized this fact: "We know an object when we know how it is made, and we know how it is made in the degree in which we ourselves make it."⁸¹ Man can no longer find his end in thought or contemplation.⁸² The hierarchy of knowledge, the subordination of the practical to the speculative, of the physical

⁸¹ *Experience and Nature*, p. 428.

⁸² "Now there can be no doubt that the theory of knowing as contemplative was also 'operative' in the very important sense that it operated to influence men's minds and thus to some extent guide their conduct, misguidance being also a form of guidance. In fact, to render this theory innocuous or inoperative was the chief purpose of the book under discussion (*Reconstruction in Philosophy*). In a very real sense, it may truly be said that Dewey has dedicated his life's work to the accomplishment of this myriad formed, if not hydra-headed task." J. Ratner, "Dewey's Conception of Philosophy," in *The Philosophy of John Dewey*, ed. by Schilpp, *iam. cit.*, p. 64. Cf. *Experience and Nature*, p. 332.

and mathematical to the demands of being is destroyed. A new end must be found or all end denied.

In the denial is not philosophy itself abjured? It is, and for many years so Dewey acknowledged. So he said in 1917: "But the chief characteristic trait of the pragmatic notion of reality is precisely that no theory of Reality in general, *überhaupt*, is possible or needed."⁸³ Such a stand is rather frustrating to one who makes of philosophy a profession. The change in opinion was gradual but productive and in 1925 appeared *Experience and Nature*⁸⁴ in which, as Ratner notes, "he explicitly developed a general 'theory of nature, of the world, of the universe.'"⁸⁵ The "metaphysic" of Dewey consists in the "location" of knowledge within experience, experience within nature.

Reconstruction presaged the Procrustean nature of this performance. All things and thoughts are stretched, lopped off, disfigured in the attempt to fit them with the requirements set by the practical. The point here made is that the things and thoughts, the very project itself are not derivative from the practical but only from the mind's speculative function. How else account for asking "what is" of realities not subject in their nature to the making of man? Dewey's consistency forbids that the answers be more than of "how." But, whence derives the data *taken*, to use the term he prefers to *given*, upon which the forms of practicalism are imposed? Spectator and presentational theories of knowledge, all therefore save that of experimentalism, are accused of "reading off" reality, ready made. What is the operation of the instrumentalist mind in constructing a metaphysics if not a "reading in" of solely

⁸³ J. Dewey, "The Need for a Recovery of Philosophy," in Dewey, Moore, Brown and others, *Creative Intelligence* (New York: Holt, 1917), p. 55.

⁸⁴ *Experience and Nature* incorporated the Paul Carus Lectures delivered by Dewey the preceding year. A second edition was published in New York by Norton in 1929. The presentation underwent considerable change, especially in the earlier chapters, but the doctrine remained essentially the same.

⁸⁵ Ratner, "Dewey's Conception of Philosophy," p. 66. The noting of this "shift" is the primary concern of Ratner's contribution.

practical meaning to things and thoughts necessarily ready made?

To describe an idea as "a plan of action" is to presuppose the idea as existent, the term as previously proffered, and to take an aspect functional in limited circumstances as the reality involved. In answering *how*, the idea itself escapes consideration and only its use, and that in part, occupies investigation. The question, what is an idea, has seemingly been raised but definitely left unanswered save in the sense that nothing *is* anything.

One reason for the writing of *Experience and Nature* may well be the compulsion felt by Dewey to devise an account in terms of the practical for the things and thoughts with which he must perforce deal if he is to say anything remotely philosophical in character. In this undertaking the attitudes and vocabulary of evolutionism are of invaluable service. By means of a conjectured series of "adaptations," ideas and even the mind itself are portrayed as the consequences, not the causes of language. The reversal is, by the way, symptomatic of the whole procedure: realities are to be defined in terms of eventual functions, their being equated to their use.

In this instance, by means of a constructed universal embracing language with all signal activities, language is a matter of signs and significances which "came into existence not by intent but by overflow, by-products, gestures and sound."⁸⁶ Beginning is made with the squirting of the cuttlefish, the clucking of the hen. These occasion reflexes in other animals and transition to the human occurred when reaction was to the meaning involved in the gestures; thereby making the reaction participative, initiating the sharing that is communication. The heart of language lies in this communication. Sounds and gestures are endowed with meaning; a human learns to respond not to individual movements but to the intent thereof and so language is not an expression of something antecedent, but anticipative of a common action. Mind, as intellect, can be

⁸⁶ *Experience and Nature*, p. 175 ff.

defined as the possession of and response to meanings. A bit of a leap is involved about which even Dewey is uneasy: "It is difficult to state the exact physiological mechanism involved. But about the fact there is no doubt."⁸⁷

Dewey's view of the world and of man is similarly constructed. A practico-logical unity is evolved by the longitudinal perspective of ongoing histories, the latitudinal analysis of adaptive interactions. Assuming nature as the most available, and beloved, general term, the experimentalist attitude is described by Dr. Ratner:

Nature is an inclusive history of multitudinous ongoing histories, the comprehensive interactive continuum consequent upon the interactivities of an infinite number of interactive continua of an indefinite number of general kinds.⁸⁸

Among these interactivities are the operations that support life and among the living are those of sufficiently developed nervous systems to support the interactions generically described as experience. Within this matrix arise the conditions productive of language, giving new and social dimensions to man's existence. The cultural matrix in turn forms and shapes the actions, beliefs and purposes of men.

The sense of watching the assembling of a prefabricated structure according to a well known plan is particularly present in the practical interpretation of traditional philosophical conceptions during the elaboration of Dewey's rather unique notion of experience.

To counteract a long tradition, nurtured by introspective psychology, that experience is a subjective, personal affair, new definitions must be formulated of mind and matter, mind and body, sensation, perception, consciousness and personality. All are affairs qualitative of natural events, arising in and out of nature. Just as the organized interactions exemplified by

⁸⁷ *Ibid.*, p. 179. For later and further developments of these conceptions of mind, language and the knowledge transaction confer Dewey and Bentley, *Knowing and the Known* (Boston: Beacon, 1949).

⁸⁸ Ratner, ed., *Intelligence in the Modern World*, p. 152.

digestion and respiration are characteristic of life and define natural events at the level of the psycho-physical, so mind and matter are characteristics of them at another level. "Matter expresses their sequential order and mind the order of their meanings in their logical connections and dependencies."⁸⁹ Neither is the ultimate "stuff" of reality; they are properties of the interactive continua which are natural events. Likewise there is but body-mind, an integral whole. As life is the organization of antecedent physical events, so mind is the organization of antecedent physiological, vital events. "Chemico-physical processes go on in and by interactions which have reference to the needs of the organism as a whole and thus take on psychical quality, and in human beings at least, are in such connection with the social environment as confers upon them an intellectual quality."⁹⁰ The difficulties of traditional philosophy concerning mind and matter, soul and body vanish in the face of the operational unity herein given logical status.

Parenthetically the process of "inverted reductionism" at work might be noted. Whereas the nineteenth century devotees of materialistic evolution were engaged in leveling the differences distinguishing the living from the non-living, man from beast, the twentieth century new naturalists are concerned to retrieve what was so forfeited without acknowledging differences in essences and specific natures but merely by reversing the reductive process and retracing the way back to the affirmation of mind, life, etc. At any rate, the self-congratulation heralding the process has as much, if not more, justification than its nineteenth century counterpart. No more philosophic or scientific reason is given for the one than for the other. Rather convenience and dedication of purpose seem in each instance to play the major role. The nineteenth century materialist was influenced by his quarrel with idealism and with religion. The twentieth century naturalist, at root no less materialistic, wishes above all to recoup lost values.

The other factors entering into the discussion of experience

⁸⁹ *Experience and Nature*, p. 74.

⁹⁰ *Ibid.*, p. 76.

suffer similar fate. According to Dewey, the traditional misconceptions result from treating experience as an affair of knowledge and the factors enumerated in isolation. Experience is an affair of the interaction of the organism and environment; it is not exclusively nor primarily cognitive. Within it sentience, feeling, perception, thought, emotion, impulse, and purpose play cooperative roles.

It is from the standpoint of the roles played that Dewey defines each. To speak of sensation as consequent upon language, mind, and discourse rather than antecedent or causative in their regard may seem startling at first. It is no more than to pay tribute to the function of, say, red, to mark off a dress or a toy and guide their choice or use.⁹¹ Or, it is to note that in refined inquiry sensations may function as the ultimate irreducible meanings to check or verify other meanings.⁹² It must be recollected that account is being made of an organism-environment interaction in a world of change.⁹³ In such a world any stimulation of the sense organs and determination of an object as contemporaneously affecting the organism is a matter not of "immediate perception" but of inferences, of inquiry into the antecedents of awareness. "'Peripheral origin' marks an interpretation of events, a discrimination scientifically valid and important, but no more an original datum than is the spectrum of Betelgeuse."⁹⁴ In any event,

⁹¹ "The notion that sensory affections discriminate and identify themselves, apart from discourse, as being colors, sounds, etc., and thus *ipso facto* constitute certain elementary modes of knowledge, even though it be only knowledge of their own existence, is inherently so absurd that it would never have occurred to anyone to entertain it were it not for certain preconceptions about mind and knowledge." *Ibid.*, p. 259.

⁹² This function does not imply that experience is made up of compounding atomic sense data. ". . . experience as such cannot be reduced to sense data, since immediate reality in experience consists of things, not of qualities." Dewey, "Experience, Knowledge and Value: A Rejoinder," in Schilpp, *op. cit.*, p. 534.

⁹³ The sole subject matter of awareness is "things in the process of change." Dewey, *Essays in Honor of William James*, p. 72. Contained in Ratner, *The Philosophy of John Dewey*, p. 85.

⁹⁴ *Experience and Nature*, p. 334.

sensations are not elementary forms of knowledge but serve eventual and logical functions in Dewey's scheme of things.

The awareness which may be discriminated by inquiry into emotion, sensation, thought, desire, dream, and which is the consequence of change is consciousness. As such it can only be had, not known.⁹⁵ Within it, mind plays its role; in fact, mind is essentially active. "Mind is primarily a verb. It denotes all the ways we deal consciously and expressly with the situations in which we find ourselves."⁹⁶

Equally "dynamic" is the conception of the thinking self, the ego. Viewed as the subjective phase of the organism-environment interaction, "personality, self-hood, subjectivity are eventual functions that emerge with complexly organized interactions, organic and social."⁹⁷ The conception is interesting and reminiscent of Hegelianism. That there appears in nature an individual with a mind is the effect of organic and social interactions. The mind that appears in individuals is "a system of beliefs, recognitions and ignorances, of acceptances and appraisals of meanings which have been instituted under the influence of custom and tradition."⁹⁸ As in the individual and due to his inherent plasticity and preferences, this mind undergoes changes, directed reconstruction, out of which emerges self-hood, personality. Here clearly and in a quasi-ontological context is the affirmation of the primacy of the will in the practical. It is the preferential bias of the individual that issues forth "initiating, adventuring, experimenting, dissolving" to reshape and remake the world.⁹⁹

The outcome of these considerations is the experimentalist concept of experience. Experience, like matter, mind, body-mind and the rest, is something that is transacted in nature, arising within it and consequence of its interaction. It is not of a self, not subjective nor yet objective, not set off from

⁹⁵ *Ibid.*, p. 306.

⁹⁶ J. Dewey, *Art as Experience* (New York: Minton, Balch, 1934), p. 263.

⁹⁷ *Experience and Nature*, p. 208.

⁹⁸ *Ibid.*, p. 219.

⁹⁹ *Ibid.*, p. 242.

reality as a reaction to it or copy of it.¹⁰⁰ Experience is approached behavioristically not as evidence of a substance but as a mode. It is an affair of the interaction of organism and environment; both are implicated within it. It is characterized by change, the conjunction of the relatively stable and relatively contingent, that is the condition of nature. So it includes habit and impulse, mind and consciousness, having and being and thinking; so it embraces the earth and the stars, birth and death, life and growth. Experience is all these and none of them exclusively. It is assimilated to history, "as deep and wide and full as all history on this earth."¹⁰¹

Briefly, experience occupies in Dewey's thought the position of being, *ens*, real and rational, in the thought of Aristotle and St. Thomas. While being emphasizes the fixed, the permanent, experience dramatizes flux, the changing; where the perfection of being is found in the act without any potentiality, the perfection of experience is its perfectibility, its potentiality to become. As Aristotle's is a philosophy of being, Dewey's is a philosophy of experience. Experience is not a mental state, not primarily nor even most importantly; it is the distinctive subject matter of Dewey's inquiry. As such it transcends definition: "We shall never account for it by referring it to something else, for 'something else' always is only for and in experience."¹⁰²

The term, nature, is, after all, only a more generalized term in the sense of providing a convenient location for experience, a context to which appeal can be made, to which the unknown and perhaps unknowable may be ascribed; nature is a recognition of man's limitations. It is no accident that by many naturalists nature is acknowledged as god in the only sense

¹⁰⁰ Hence the effort to disprove its subjective character, not to make it objective (for it is neither; subject and object constitute a distinction not of universal but limited reference); but because the accumulated bias, to Dewey's mind, of psychological tradition tends to render a subjective account of the mental, mind, consciousness, perception, sensation. Cf. Ratner, ed., *The Philosophy of John Dewey*, p. 87.

¹⁰¹ *Experience and Nature*, p. 8.

¹⁰² *Ibid.*, p. 28.

intelligible to them; nature serves to perform the functions and provide the explanations that theists attribute to divinity. The true subject matter of Dewey's philosophy is experience as he himself so clearly perceives. He is concerned with its character, manifestations, modifications, and, above all, with its control. Exclusively in terms of the last, control, is he interested in knowledge. His dedication is to extend the instrumental worth of knowledge unto the "extension of the range of persons enjoying consummatory experiences, enrichment of their contents, and increased control of their occurrence."¹⁰³

In the development of Dewey's thought, as these examples are indicative, may be noted particularly dialectic, the practical, evolutionism. Thus, the unacknowledged functioning of the speculative, either by other philosophers or by Dewey himself, provides much of the subject matter for philosophic consideration. Dialectic contributes the mode of procedure, the practical canons for resolution and interpretation of alternatives, and evolution the vocabulary with which to speak. The result is more an exercise of transposition than a philosophy, a cacaphony signifying nothing in place of speculative harmony.

The elements of the analysis serve the further purpose of accounting for the traits of Dewey's thought as these have been noted by students of it. The anti-intellectualism disturbing to Woodbridge is but the negation of the speculative made particularly evident when any truly philosophic issue is raised. Since the practical is resolved in operation the activism noted by White is inevitable.¹⁰⁴ Since the operable is by nature relational in character, the extreme relativism decried by Crosser as source of nihilism is equally unavoidable.¹⁰⁵ The practical is concerned with the possible and that possibility finds root objectively in the degree of materiality. So instrumentalism

¹⁰³ Dewey, "Experience, Knowledge and Value: A Rejoinder," *iam. cit.*, p. 563.

¹⁰⁴ M. G. White, *The Origin of Dewey's Instrumentalism* (New York: Columbia, 1943), pp. 22, 117.

¹⁰⁵ P. K. Crosser, *The Nihilism of John Dewey* (New York: Philosophical Library, 1955).

is most at home in this material world and precisely in its materiality. Potentiality, not act, is the obvious trait of the possible. The contingent in its contingency, change as changeable and changing, motion as a potency to be actuated, only these are admissible, only these are expressible in operational terminology. Dewey had perforce to become a philosopher of becoming; being could not be fitted in even if desired.

Desire does play its role. From that discriminating element of the practical, the end in the good as good, follow also those conditions by which instrumentalism is tendential, concerned with existence and devoted to the expansion of the goodness or exercise of the power of the practitioner. All these are consequents in turn of radication in the will. Herein lies the proximate source of that voluntarism with which pragmatism has been identified so often. As he so frequently does, Dewey clothes necessity with the robes of virtue. "Honest empirical method will state when and where and why the act of selection took place, and thus enable others to repeat it and test its worth."¹⁰⁶ Commenting on this statement, the instrumentalist Donald Piatt explains: "Philosophic thought depends upon an act of choice and of selective discrimination for a purpose or preference."¹⁰⁷

Within the limits set by exclusive devotion to the practical, this selectivity is allowed free play in determining the other traits characteristic of instrumentalism. These consist of doctrinal adjuncts in which Dr. Dewey's contribution has not been so original as the exploitation of the practical. In the main, they were in the philosophic air which he breathed. Thus the evolutionistic setting and language in which he clothes his thought are those of the age of Darwin and Spencer, the temporal clime of Dewey's philosophical begetting. Another naturalist, Thelma Lavine, calls such pan-evolutionism into question. "To affirm the 'growth' of the higher out of the

¹⁰⁶ *Experience and Nature*, p. 36.

¹⁰⁷ D. A. Piatt, "Dewey's Logical Theory," in *The Philosophy of John Dewey*, Schilpp, ed., p. 108.

'lower,' to deny 'gulfs,' 'gaps,' or 'breaks' is to speak the language of the seer, not that of common sense or of science."¹⁰⁸

Although he made it appear to be such, the doctrine of evolution is not essentially related to the core of Dewey's teaching. It has provided him with a vocabulary of functionalistic jargon without which he would probably have been speechless. And this literally, for without the backing of evolutionistic teaching his analysis of thought derived from language and the latter from biological responses to stimuli would probably have not been excogitated, much less proposed. Evolution further furnished the "vision" whereby he was able to locate, in continuity and interaction, knowledge, experience, the world and the universe. Without that frame of reference the fitting of all thoughts and things into the practical would have been made evident for the *rigor mortis* that it is, rather than endowed with a semblance of life in the likeness of the digestive system. Conversely, the ease with which the theories of extreme evolutionism coincided and found support in the instrumentalist doctrines is suggestive of an error common to both, the denial of the unique character of the human intellect and intellection.

Dewey's nominalism, that "ancient sin," as Jacques Maritain calls it, at work "in the roots of all modern philosophies,"¹⁰⁹ might be described as a secondary effect of practicalism. There is no obligation on the practical man as such to become a nominalist so long as he does not wish to philosophize. Then his concern with relations, with operability, his negation of the speculative will leave him no alternative. While his affirmation of the practical function of the mind gives to his nominalism a novel twist, verging on conceptualism, by his negation of speculation he must maintain that essences, proper natures, the ontological foundations of universals are illusions. Historically, perhaps, Dewey's nominalism so derived. It was also and still is the current positivist doctrine.

¹⁰⁸ T. Z. Lavine, "Naturalism and the Sociological Analysis of Knowledge," in *Naturalism and the Human Spirit*, Y. Krikorian, ed. (New York: Columbia, 1944), p. 183.

¹⁰⁹ J. Maritain, *The Degrees of Knowledge* (New York: Scribners, 1938), p. 1.

Moreover, other influences were at work. It is a matter of dispute¹¹⁰ how much attention Dewey gave to the work of Peirce when he was formulating instrumentalism, but the logical continuity of Peirce, James and Dewey in the problem of meaning has been affirmed by Dewey himself.¹¹¹ The original question proposed by the founder of relational logic concerned the verification of the objects of conception to determine whether they were meaningful. It was this that led him to formulate the pragmatic maxim of clarifying ideas by attention to their consequences. This was extended by James with emphasis upon the voluntary aspect and evolved into, among other results, "the will to believe," associated with James' philosophy. Dewey incorporated the pragmatic outlook, after changing the emphasis to that of verification, into his own theory with which it was congenial. Oesterle has pointed out that no small part of the problem rested on the false grounds resultant of the neglect of the Aristotelian and scholastic doctrine of the supposition of terms.¹¹²

Supposition can be defined as "the taking of a term for something concerning which it is verified."¹¹³ It must carefully be distinguished from signification. The latter is a substitution whereby a word is taken as a sign in place of a thing; the former is

a sort of applicative substitution whereby after the intellect takes the representation and signification of a word, it applies this name in various ways in propositions, so that it stands for that to which someone wishes to apply it.¹¹⁴

Briefly, the word in its function of signification and as representative sign of the thing is prior to any supposition. Its validity as sign does not depend upon its verification; it is the result of the apprehensive power of the mind. The supposi-

¹¹⁰ White, *op. cit.*, p. 8.

¹¹¹ *Studies in the History of Ideas*, II, pp. 353 ff.

¹¹² J. Oesterle, "The Problem of Meaning," *The Thomist*, VI (1943), 180-229.

¹¹³ Joan. a S. T., *Cursus Phil.*, Vol. I, p. 28, a10.

¹¹⁴ *Ibid.*, p. 29, b16.

tion by which the term is applied and by which it forms part of a proposition does require verification. What is verified is not the meaningfulness of the term (that is presupposed) but the truth of the proposition. To confuse the substitution that takes place in the signification for that which supposition performs is to deny the apprehensive power of the mind and say that words get their meaning from application. The nominalism of Dewey seems to result, at least more proximately, from this error latent in the pragmatic maxim.¹¹⁵

Critics, favorable and adverse, have enumerated many other traits of Dewey's thought. W. T. Feldman has pointed out as characteristic, monism, provisionalism, organicism, and perspectivism.¹¹⁶ Savery in his eulogistic analysis has emphasized Dewey's neutralism, perspective realism, concatenism, tychism and naturalism.¹¹⁷

Some of these, as the provisionalism, perspectivism and concatenism, are so many implications of the practical as such. Concern with relations cannot but issue as a concatenistic development of the connection of one thing with everything else, especially in the construction of a world view. Perspectivism by which "each of us is limited to his own particular perspective and reality-from-a-perspective is all that can be known"¹¹⁸ is a direct consequent of the dropping of the speculative and the denial of the apprehensive power of the mind. It is further possible of interpretation in terms of Dewey's realism. Strictly, Dewey is an idealist, making the old idealist

¹¹⁵ Dewey's "correction" of James did not consist in removing the part played by the will. So long as he wished to subscribe solely to the practical, he could not remove it. Rather it consisted in the complete abandonment of the speculative and the insistence that no formally practical science be admitted that could not be made completely practical by the instrumentalist himself. The ultimate measure of the practical is man and man, moreover, as distorted by Dewey's analysis of his nature.

¹¹⁶ W. T. Feldman, *The Philosophy of John Dewey: A Critical Analysis* (Baltimore: Johns Hopkins, 1934).

¹¹⁷ Savery, "The Significance of Dewey's Philosophy," in Schilpp, *op. cit.*, pp. 481-513.

¹¹⁸ Feldman, *op. cit.*, p. 13.

error in mistaking the medium or *id quo* for the object or *id quod* of knowledge. This is necessitated, not as often alleged, by his Hegelian background, but by the practical impossibility of giving more than a phenomenological and functional account of the idea as such. So "reasoning" remains entirely within the mind and is without existential validity. Ultimately, it is by the practical that Dewey literally crashes through to realism, by means of the operations demanded for a completely practical knowledge.

The traditional naturalistic opposition to every form of dualism found integration and support in Dewey. In his thought the ultimate root is to be found in the fact that practical knowledge deals with relations. For Hegel, monism was the result of viewing concepts as interwoven, interdependent. Hence reality was conceived in terms of an organism, every part of which owed its specific character to the position it occupied in terms of the whole. In Dewey, by reason of the practical concern with relations, this conceptualization issues as the functional interpretation of the elements of any area of thought and things. So knowing *includes* actions, the idea includes its practical consequents, the subject is such only in relation to object.¹¹⁹ The Hegelian organicism of which Russell accuses Dewey¹²⁰ is a mode of conceptualization and interpretation enforced by the practical outlook and not, as Dewey has noted, a theory about the universe.¹²¹ Dualism is negated because the proper natures of things, foundation of the distinction between matter and form, soul and body, etc., are denied in affirmation of relations as the sole constituents of reality so far as knowledge can attain it. The eventuation is Hegelian, not one world but one mind; not, however, as a mental construct, as an *ens rationis*, but of mind imposed through action.

¹¹⁹ Cf. Dewey, *Logic*, pp. 109 ff., 133, 166 and *passim*; *The Quest for Certainty* (New York: Minton, Balch, 1929), pp. 13, 32, 58, 244, and *passim*; *Problems of Men* (New York: Philosophical Library, 1946), pp. 309-321.

¹²⁰ B. Russell, *A History of Western Philosophy* (New York: Simon and Schuster, 1945), p. 823.

¹²¹ "Experience, Knowledge and Value: A Rejoinder," p. 570.

Tychism, stressing the element of change and indeterminism in reality, may be regarded as a refreshing return to the doctrine of Aristotle, after the long dark night of absolute determinism settled on philosophy by nineteenth century materialism. A practical philosophy in search of something to do and to make had little choice in the matter. The contingent as such constitutes its life-blood.

Neutralism is a recent sophistication of the body-mind problem. In Savery's words, it means: The same sort of entities enter both into our experience and also into the existential order of the physical world. Such entities in their essential nature are neither physical or psychical.¹²² Hence, they are neutral. Dewey himself does not use the term although his classification of mind and matter as "different characters of natural events"¹²³ justifies the appellation. The doctrine as elaborated was, so far as his fundamental practicalism is concerned, a matter of choice. Only some such explanation could fit the bed Dewey had made for himself. The alternative was admission of radical differentiation between idea and thing, between the physical and psychical orders, and led inevitably to the existence of a soul. Fundamentally, neutralism is idealism in reverse and for Dewey the practical dictated the reversal.

The touted "Copernican revolution" in the theory of knowledge, celebrated particularly in *The Quest for Certainty*,¹²⁴ is itself nothing more than that same reversal. The conflict between mind as a spectator of and as active participant in the changes of nature is that between speculative and practical knowledge. The reversals so fondly tabulated by Dewey are only the recognition that in practical knowledge the end is the principle, that the thing is measured by the mind rather than the mind by the thing, that practical knowledge is resolved by operation. Where Thomism surpasses and reconciles the

¹²² Savery, *op. cit.*, p. 487. Thus the New Realism rebelled against Idealism's reduction of everything to mind by reducing mind to everything.

¹²³ *Experience and Nature*, p. 74.

¹²⁴ *Quest for Certainty*, ch. XI, pp. 287-313.

a tool. As unique and supreme practical "intelligence in the modern world" exists to control, to secure escape from peril, to subject all to the power of man. The supremacy of method cannot then be challenged. Ancient Cratylus, who also judged that all the world was change, did not deem it right to say anything but only wiggled his finger.¹²⁷ Dewey would harness the universe to the wiggle.

CONCLUSION

The philosophy of John Dewey is undoubtedly superficial. Regulated by the principle of an exclusive practicalism it could not be otherwise. The great philosophers of the past reckon their achievements in terms of the extent and penetrating nature of their speculations upon ultimate questions. For Dewey speculation radically can never rise beyond the character of a guess, a conjecture. Thinking for its own sake can never be more than a "sport," presumably of a leisured few. The relativism consequent upon the denial of man's speculative capacity renders baseless any discussion of ultimates. The sensism that is bulwark to practicalism, and its inevitable premiss, dooms instrumentalism to a descriptive particularism foreign to true philosophic inquiry. Even the "shift," noted by Ratner, from the denial of all metaphysics to the affirmation and exposition of a "naturalistic metaphysics" does not overcome the obstacle to philosophic thought initially placed by Dewey himself. The "general problems," as distinguished from "problems in general," but afford the opportunity to measure objective reality according to the preformed limitations imposed upon man's powers to know. "Essences" tailored to fit a preconceived pattern are not essences at all and any objective essential natures must be, and are explicitly, denied. Dewey has avoided the fantasy of a metaphysic divorced from reality at the expense of reality itself. By his primary postulate Dewey condemned himself to investigate

¹²⁷ *IV Metaphys.*, c. 5, 1010 A10.

the proper interests of philosophy only to deny or distort them. His heralded excursions into education, sociology, applied psychology were not solely justified by needs in those fields; they were necessitated by Dewey's whole thought. He had nowhere else to go.

Nevertheless, practicalism is not a complete nihilism. To split the mind, as Dewey has, and take but one facet as the whole is to place in the beginning an obstacle insuperable and thus necessarily to reap many inconveniences in the end. Yet, the intellect is practical as well as speculative. Because he has taken that veritable practical function as his guiding idea, Dewey has crippled rather than destroyed himself. A forthright sensationalism eliminates all intelligence; it cannot account for its seeking to account for anything. Rather than acknowledge any idea, it should, at least logically, deny itself. Even by the elaboration of complicated associative processes it cannot extricate itself from its initial isolation in the singular. Dewey is, eventually, a sensationalist but sensationalism is not his primary or regulative category. So sensationalism is not for his thinking a foundation but an adaptation. He admits a mind not only in name but in fact, even though he develops a theory negating all that justifies the name or explains the fact. This perceived, it is not difficult to understand both his own difficulties in fitting his position with either nominalism or conceptualism and his readers' confusion and conclusion of innate, though mysterious, contradiction.

Similar analysis on the basis of subjectivism and objectivism yields like results. A thoroughgoing subjectivistic system of thought cannot, again logically, rise beyond its primary postulate of complete skepticism. Locked within self, it cannot affirm certainty even of self. Sensationalism must be skeptical of essences; the skepticism of subjective idealism is primarily of existences. Dewey's explicit delineation of the theory of knowledge has its proper term in the pitfall of idealism, the identification of the *medium quo* of knowledge, the idea, as the object of knowledge. The case cannot be otherwise since the aware-

ness produced by the interaction of object and physiological mechanism can only terminate in the effect of that interaction within the organism. Any psychic existence radically distinct from physical existence, any "grasping" or power of "otherness" is pointedly excluded in theory. So does Dewey deny sensation to be knowledge at all and labor at the distinction between "having" and "knowing." Yet he affirms we know things rather than ideas and realism is imputed to him. Again it is by the saving grace of the practical as guiding norm. A complete mind, one both speculative and practical, is safeguarded in realistic attitude by acknowledging that the mind is measured by reality. A mind that is solely practical achieves realism in that, to retain its practicality, things, reality, are measured by the mind. Such a realism cannot ultimately account for itself, being but a portion of the whole truth, and so is, after all, best simply adopted, proclaimed, and denominated "naive."

Multiplication of instances will but confirm the diagnosis that, with the practical functioning to control the development of his thought, Dewey will retain a part of truth. Despite his adaptations of other doctrines which of themselves contain the seeds of complete disruption, the dominance of the practical will exercise a constant rectification. He cannot in its face identify himself with either the rationalism of Kant or the positivism of Comte. Equally, and for the same reason he avoids the extremes of Locke and Hegel, of absolute empiricism and absolute idealism. With practicalism at the helm, the course steered by Dewey sheers away from the mentalistic nominalism of subjective idealism in emphasizing the real nature of philosophic subject-matter. The equally nominalistic standpoint, proper to sensism and limiting the designation real to the physically particular, is, while embraced, modified. Ideas as plans of action read into nature, function as universals even though their status as such is disavowed.

The practical point of view thus contributes a measure of truth and protection in matters of epistemology, as in the

avoidance of complete sensationalism; also, though to a lesser extent, in ontology, as in providing weapons against subjective idealism. In morals, however, the exclusive adoption of the practical has led to contradictory conclusions. That this should be so follows from the limitations of the practical reason. Practical reason is concerned with means. It does not establish nor propose the objects which are the ends of the appetites but is concerned with them solely as goods to be effected or attained. It cannot demonstrate the existence of God, the spirituality of the soul nor that soul's immortality. Thus, if left to its own devices, it cannot be concerned with goods that are, by the elimination of speculative reason, excluded from its horizon. Only sensible goods remain upon which to focus its power. Since the securing of these is already sufficiently provided for in the sensitive order, the practical reason becomes a superfluous appendage adding only a new dimension to the possibilities of the abuse of sensible goods. The grotesque result is a brute animal gratuitously endowed with a power of self-destruction. Moral science is an impossibility and the procedures termed moral are but the extension of the instinct of self-preservation dictated by the threat of suicide.

There is, however, another way open. If the practical reason does not of itself provide ends, it does not, on the other hand, exclude ends otherwise provided. While it cannot account for such goods as peace, honor, charity or justice, it can, upon their assumption, proceed to function toward their realization. In justification can only be adduced the desirability of such goods to the appetite and hence a radical voluntarism must result. The moral system erected upon such a basis must be necessarily subjective. It could, also, be true and ordered to the proper perfection of man, if the good assumed as end and regulative principle be the true end of man.

So do the incapacity of the practical to establish ends and its potentiality to realize ends otherwise provided account for the contradictory tendencies within the moral system of John Dewey. The only ends he can account for cognitively are those

of the sensible order; hence, he is under compulsion to reduce what spiritual goods he adopts to that order. From this derives his persistent efforts to define anew the ideals he proposes that he may account for them in his own terms. More than the reasons alleged this necessity impelled to the definition of sensation itself as a "having"; as by so erasing any essential discrimination between the affectional and cognitional welcome could be extended to any object of the appetites. Such an object once admitted can be by subsequent "knowledge," couched in terms of means of realization, be defined. Ends, of course, not within the practical powers of man to effect must perforce be denied. Even this has the propagandizing advantage of making the denial of the existence of God and the immortality of the soul seem consequents of the "sciences" espoused, rather than its presuppositions.

Despite the protestations, the followers of Dewey have seized more the freedom to assume ends than the ends he himself proposed. They failed to realize that whatever of worth his doctrines contain derives not from the control over destiny he seemingly releases to man but from the goods he arbitrarily assumes for him. Dewey's own faulty perception of what he has done and consequent stress upon the instrumentality of intelligence as conferring a unique power to man must be held responsible. Abetted by the behaviorism, materialism and sensism with which it has aligned itself, experimentalism has in overt practice made more evident its tendency to self-destruction than its accidental ameliorative possibilities.

As initiated by Dewey the latter have been principally in the social field. The true worth of the individual as the image of God cannot be admitted. The possibility of natural perfection by way of growth in the moral virtues is acknowledged only obliquely; the ends of the virtues enter by way of methodological categories. Basically, the goods possible for Dewey to assume for the individual within his self-imposed limits are too insignificant and too blatantly sensible to suffice as human goods. The oft-remarked propensity for the man of Dewey's

philosophy to dissolve in a maze of relations is due to more than the relativistic position taken by him.

Unfortunately, in his efforts for social amelioration, even when the goals he has chosen are admittedly valuable, Dewey's concept of man has intervened to distort his prescriptions. It might be said that the perfections to which he had denied any antecedent ontological status he posits as possibilities to be striven after, that reality for him becomes ideal in the ethical order. This, however, is true only in a wide sense; Dewey is too vague, and necessarily so, concerning the goals of on-going existence. Principally, he has brought to bear a needed emphasis upon the disparity between the ends professed by society and the ends currently realized by the means in actual operation, upon the inability of the will to impart by mere wishing a beneficial result to means essentially harmful of eventuation. So has he indicated a task that must be undertaken by Catholic theology. He has charged that man is living daily in a world by means of works that are divorced from the ends proffered by the Christian faith. That charge must be examined and answer made, and change also if necessary, if the spirit of God is to prevail over the spirit of man.

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THE VITALISM OF HANS DRIESCH

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I

EXPOSITION

TO many a modern biologist or thinker conversant with the problem of the nature of life, an examination of the neo-vitalist position is practically identified with the study of the views of Hans Driesch. Not that Driesch alone today defends the vitalistic fortifications, for those who uphold the autonomy of life are many and distinguished. Indeed, if some happy chance brings unanimous agreement one day on the true nature of life, it may well be seen that many of Driesch's contemporaries in the service of vitalism have had deeper insights and profounder explanations than his. Nonetheless it is Driesch's name that first is mentioned in every modern summary of the problem, his views first discussed, his objections given first hearing.

Nor is the pre-eminence of Driesch in this field surprising. Quite literally he devoted his life to the study of the problem. As a biologist his most famous experiments have had to do with the exhaustive study of those phenomena wherein the animate differs most remarkably from the inanimate; his later work as a philosopher was concerned with putting vitalism on sound theoretical foundations, and with drawing out the consequences of his one central doctrine in terms of a world view. Moreover a good part of Driesch's fame is based on the fact that he was a pioneer in the attempt to study the problem experimentally; hence he is viewed by those afflicted with scientism as a "scientific" vitalist, a position which they feel that they can respect, even if they cannot agree with it.¹

¹ Of course Driesch's later defection to the camp of philosophers disappointed and dismayed those who contend that true and certain knowledge can only come through the "scientific method." His metamorphosis, however, merely served to

HIS LIFE

Born October 28, 1867 in Kreuznach, Hans Driesch was the son of a wealthy merchant family. During his studies at the universities of Hamburg, Freiburg, Munich, and Jena, he showed marked interest in and aptitude for the natural sciences, especially for biology on which he concentrated his principal attention. Following his graduation Driesch embarked on a tour of the Far East, and, upon his return in 1891, went to Naples to work for the zoological station there.

It was during his stay in Naples that Driesch carried through most of the experiments on which his reputation rests. Influenced by certain experiments performed by Gustav Wolff and William Roux, Driesch formulated a series of critical experiments to test the teleological orientation—static or dynamic—of various organisms. To some of the more important of these we shall later have occasion to refer.

The results of these experiments and Driesch's analytical interpretation of them were published in a series of works published between 1893 and 1904.² Finally in the Gifford lectures for 1907 and 1908, Driesch presented his fully matured vitalistic theory and incorporated it within the body of a comprehensive logical and philosophical theory.³

strengthen the conviction that the nature of life, like other natures, is inaccessible to "scientific" knowledge, and is only a matter for "abstract speculation," a mental crime to be shunned and despised by the faithful positivist. E. g., cf. Erik Nordenskiöld, *The History of Biology*, trans. by L. S. Eyre (N. Y.: Tudor, 1940).

² Hans Driesch, *Die Biologie als selbständige Grundwissenschaft*, 1893; *Analytische Theorie der Organischen Entwicklung*, 1894. In these first two works Driesch enters into the analysis of certain basic notions involved in the controversy. Having decided in 1895 that vitalism alone could explain the actions of animate things, Driesch published his first proof for vitalism in *Die Lokalisation Morphegenetischer Vorgänge. Ein Beweis vitalischen Geschehens*, 1899, a second proof in *Die organischen Regulationen*, 1901, and the third in *Die 'Seele' als elementarer Naturfaktor*, 1903. A summary of the work done thus far was published in 1904 under the title *Naturbegriff und Naturteile*.

³ Driesch, *The Scientific and Philosophy of the Organism*, Gifford Lectures of 1907-1908 (London: A&C Black, 1908) 2 vols. A revised second edition in one volume was issued in 1929 by the same publisher, and is referred to uniformly throughout this work.

This attempt at the interpretation of vitalism in terms of a wider world-view marked a change in the direction of Driesch's interest towards philosophy. In 1909 he became Privat-dozent in Philosophy at Heidelberg, advancing to the rank of Professor of Philosophy in 1911. In 1920 he went to Cologne in the same capacity, and in 1921 he transferred to the University of Leipzig. There he remained until his death in 1941.⁴

The main body of Driesch's philosophic conclusions will be briefly summarized later. There is, however, one part of Driesch's philosophic analysis upon which his vitalistic theory places its full weight. This portion is his analysis of causality.

CAUSAL FOUNDATIONS OF DRIESCH'S THEORY

We are aware of certain fixed relations, according to Driesch, among the succession of objects in our thoughts. And among these fixed relations we find that of consequence or implication; I am aware, for example, that I am thinking of this *because* it is implied in that. I may think of animal because I have been thinking of sheep, and the concept of the first is implied in the idea of the second. The relationship of implication and consequence, therefore, is recognized by the mind as a possible type of relation between objects.

The question now arises whether this concept can be "thrown outwards" upon the world of natural objects. Looking to nature, I find that this concept of "consequence" is indeed found in the extra-mental world in a form that may be called causality.⁵ Not to be confused with mere temporal sequence—although it takes place in time—causality expresses a *propter hoc* in addition to the *post hoc*. Neither must causality be confused with functional dependence, the fixed ratio of change of two variables which can take place without any dependency

⁴ For life of Driesch, cf. his *History and Theory of Vitalism*, trans. by C. K. Ogden (London: Macmillan, 1914), pp. 176-178.

⁵ Indeed it is by judgment of the rationality of the becoming in terms of causality that Driesch distinguishes the world of nature from that of dreams and imagination. Cf. *History and Theory of Vitalism*, p. 193.

between them.⁶ Briefly, the idea of causality includes three elements: the element of consequence, that of the application of this concept to the empirical world, and that of a temporal sequence.

From the assimilation of causality to the concept of consequence or implication certain practical results may, and indeed must, be drawn. Most important of these for our purpose here is an axiom that may be stated, "A system, in the course of becoming, is unable to increase its manifoldness by itself."⁷ Obviously a concept which is contained in another and is implied by it must not be richer or more complex than that from which it is derived. This truth, then, must express a universal property of consequence, applicable to causality.

Understanding that in a given spatial system, the complexity at any time cannot exceed that of a preceding time without the intervention of an outside system, Driesch proceeds to analyze the possible varieties of causal interaction and the sources from which they may proceed. This analysis will give only the *a priori* possibilities in causality, but we shall then be able to consult nature to see which of these varieties of causal relations we find actually existing.⁸

Suppose a number of billiard balls rolling at a uniform velocity parallel to the short sides of a frictionless billiard table. As long as this situation remains unchanged, no explanation is needed. But as soon as the number, velocity, or positional complexity of the ball changes, we shall require an outside cause.

The ordinarily anticipated explanation would be the presence of another spatial system interacting with the first. We might, for instance, look for a player who puts more balls on the table or strikes them with a cue. This alternative Driesch calls "singular causality."⁹

⁶ *Science and Philosophy of the Organism*, p. 317.

⁷ *Ibid.*, p. 319.

⁸ *Ibid.*, p. 218.

⁹ Cf. Driesch, *The Problem of Individuality* (London: Macmillan, 1914) pp. 49-50. Cf. also *Science and Philosophy of the Organism*, p. 321, and *History and Theory of Vitalism*, p. 198.

But what if the number of balls were to increase without the intervention of any external *spatial* system? That is, what if a few balls suddenly appeared on the table without being transported to it from some *place* outside of it? To make such an event rational we shall have to postulate the existence of a non-spatial cause which Driesch calls a "matter creating causality."¹⁰

Similarly, if we suppose our billiard balls initially at rest and then suddenly moving without being set in motion by an outside spatial system, we shall have to postulate the existence of a "motion creating causality."¹¹

Finally, let us suppose that we find a difference from one time to another in the complexity of relationships of our billiard balls. For example, if the balls in the first place were arranged in a fairly simple configuration, e. g., a square, and if at a later time the outline they form is the comparatively complex one of an animal, we shall be forced to postulate an exterior cause for the new complexity. Even in the absence of any new elements (billiard balls) or becomings (movements), we should be forced to admit the existence of such a cause, and this type of relation may be called "individualising causality."¹²

Of course, it would be impossible to say that anything theoretically possible never happens. But in the normal state of affairs considered by physical laws, it is clear that not all these types of causality are realized. The law of the conservation of matter eliminates the second type of causality from our ordinary consideration, while the law of the conservation of energy does a similar job in eliminating the third type. This elimination process, then, leaves us with only the first and last types of causality as possibilities. Of these, the first type, singular causality, embodies the ordinary relations existing between in-

¹⁰ *Science and Philosophy of the Organism*, p. 321, *History and Theory of Vitalism*, p. 199, and *Problem of Individuality*, p. 50.

¹¹ *Science and Philosophy of the Organism*, p. 320, *History and Theory of Vitalism*, p. 199, *Problem of Individuation*, p. 50.

¹² *Science and Philosophy of the Organism*, p. 320. *History and Theory of Vitalism*, p. 199.

animate material objects and is studied by physics and chemistry. Concerning the existence of individualising causality we cannot at this stage be sure, but it at any rate offers a promising clue in our investigation of biological problems.¹³

THE EXPERIMENTS

Superficially, the development of the organism from a single-celled unit to the full-grown adult represents (if we neglect the increase in the number of units) an example of just this increasing complexity of relationship. If this naive reasoning is correct, there are two ways in which an outside cause could be conceived: as a spatial entity, in which case the organism might be conceived of as simply being a machine constructed by another machine, or as a non-spatial cause, in which case there exists the disputed vital principle. Closer attention, however, reveals that we have overlooked a third alternative—that the complexity of the result is already actually present in the single cell from which the organism evolved. Of course, the zygote will not contain the completely formed animal in miniature, including such standard accessories as teeth, limbs, eyes, hair, and so forth.¹⁴ But is it not at least possible that there be a corresponding complexity of, say, a chemical type, which forms the evolutionary basis for the later physical complexity?

How shall we decide among the three alternatives? It was at least partially to answer this question that a famous series of experiments was undertaken, beginning with the work of Roux on the embryological development in a frog. And among those who followed Roux in the investigation of this crucial question was Driesch; by his results the latter was led into the camp of vitalism.

¹³ *Science and Philosophy of the Organism*, p. 322-323. *History and Theory of Vitalism*, pp. 200-201. *Problem of Individuation*, p. 52.

¹⁴ Such a possibility was, of course, widely and loudly upheld for over a hundred years as the "preformation" theory. The absurdity of countless unborn organisms being contained fully formed in each germ cell, together with the negative testimony of the high-power microscope finally did the theory to death. Cf. *History and Theory of Vitalism*, pp. 38-40.

Briefly Roux's experiment may be described as follows: he killed one of the two first cells of an embryo frog, keeping the other one alive. On the assumption that the parent cell contains within itself the organization of the entire adult, then half of this organization should pass to each of the first two blastomeres, and out of each, half of an embryo will be formed. And that is precisely what happened. Out of the surviving blastomere there developed half of a typical frog embryo—"an organism, indeed, which was as much a half as if a fully formed embryo of a certain stage had been cut in two by a razor."¹⁵

It was in checking the results of Roux's experiment that Driesch made the discovery that was to make him a vitalist. In Driesch's experiment the general plan was identical, although the experimental subject was different—he used the eggs of the common sea-urchin (*Echinus microtuberculatus*)—and his experimental technique was somewhat different—instead of using a hot needle, Driesch shook the eggs of the *Echinus* at the two cell stage until one of the cells died or the two were separated.¹⁶ At first the results of this division seemed to bear out Roux's results, for there developed from the one separated blastomere a hemisphere instead of the sphere usually produced by a normal egg. By the time the embryo had reached the blastula stage, however, it had formed into the usual spherical shape and appeared to be in every way normal, except that it was only half the normal size. Furthermore this apparent wholeness persisted and in the end gave rise to a small but complete pluteus-larva of the sea-urchin.¹⁷

Beyond this experiment Driesch proceeded to show that the

¹⁵ *Science and Philosophy of the Organism*, p. 38.

¹⁶ A somewhat less violent method of accomplishing the same object was established later by the discovery of Herbst that cells of the *Echinus*, dividing in water lacking calcium, lose contact with each other. Hence any number of divisions may be allowed under such circumstances, and the separate cells then transferred to a normal sea-water environment in which the cells will go on dividing and will cling together. The results were the same as the experiments mentioned in the text. Cf. *Science and Philosophy of the Organism*, pp. 65-66.

¹⁷ *Ibid.*, pp. 38-39.

same result could be obtained from any of the cells at the four cell stage of the embryo, and that three of these four cells also produced a normal larval stage.¹⁵ Indeed one-fourth—any one-fourth—cut at random from the embryo at any time up to the blastula stage of the sea-urchin gave rise to a small but fully-formed larval stage.¹⁹

VITALISTIC INTERPRETATIONS

There is only one conclusion that Driesch can draw from all this—and there is much confirmatory evidence besides—and that is that the potentialities of a given embryonic cell are not limited to its actual fate. This particular cell is destined to give rise to these organs having this location and no other—yet it has the power (and under varying circumstances it will realize this power) to give rise to other organs having other locations, other functions, and other histological characteristics. In short, the cells are equipotential, each one having the same possible goals in the developed animal as the others. Moreover, in each individual case, these potentialities develop harmoniously, each one actually developing precisely that potency that is most suitable for the organism as a whole. Hence Driesch calls the total of these cells a “harmonious-equipotential system.”²⁰

What could be the influence that determines which of the many equally present potentialities will be actually developed? As we have already seen, we have to take three possibilities into account: the presence of some outside influences, the previous state of the system within itself, or finally a non-spatial cause.

Of these alternatives, the first need scarcely be considered. Most outside forces are completely equal in direction, acting upon one side no more strongly than on the other. Hence if the actual fate of cells in a harmonious-equipotential system varies without a corresponding variation in outside forces, the

¹⁵ *Ibid.*, pp. 40 ff.

¹⁹ *History and Theory of Vitalism*, p. 209.

²⁰ *Science and Philosophy of the Organism*, p. 88.

second is not causally connected to the first. Of course, there are some forces, e. g., light and gravity, that are one sided, so to speak, but while these have some influence in the development of plants, they are well-known to have no such influence in the case of animals.²¹ Neither directional nor non-directional external stimuli will, therefore, answer our problem.

Is it not possible that there exists within the structure of the embryo an organization of either a physical or chemical type—i. e., a machine in the broad sense—that precontains the organization of the complete organism, so that no real new complexity of relations has been produced at all?

That such an explanation might bear the weight of accounting for normal embryological development Driesch will admit; but that it does so in view of the experimental facts seems to him fantastic. For the very nature of a machine consists in a varying arrangement of parts—parts which must differ in size, density, shape or composition, and therefore in function, and which should be arranged in a certain order so that the activities of each part may be properly co-ordinated.

A machine cannot be divided at any point and remain what it is, for the order and the sequence that constitute the very essence of the machine would be thus destroyed. To quarter a printing press would be not to get four printing presses but to get four piles of junk. The organism of the embryo, however, can be split into four pieces and will remain what it is. The source of the final organization, therefore, cannot be precontained in the embryo as a machine. For even if we supposed the embryo to be made up of four machines, this would not explain how we could divide the system almost at will and still retain its wholeness and typical organization.²²

It is equally impossible that this differentiation of the parts of an organism be due to a purely chemical means—to the disintegration, for example, of some chemical substance, the break-down products of which would then migrate to different

²¹ *Problem of Individuality*, p. 16; *Science and Philosophy of the Organism*, p. 88.

²² *Science and Philosophy of the Organism*, pp. 102-105; *Problem of Individuality*, pp. 17-18.

poses of the embryo to serve as means of specifying their rate of growth, morphological characteristics, activities and so forth. Such a theory would involve as a consequence, first of all, that the organism would follow in its development the strictly geometrical distribution characteristic of chemicals in building forms, a distribution exemplified, for example, in a crystal; and this consequence is simply not realized in living things. Moreover, parts of the body having identical chemical compositions, e. g., the bones, differ widely in shape and structure from one part of the body to another; these differences, then, are obviously not accounted for by chemical means.²³

With the elimination of these two possibilities, we are left with only one alternative as an explanation of the wholeness and organization of a living thing—that it is dependent for its existence upon the causality of a non-spatial agent, an agent that, without adopting the Aristotelian treatment of the nature of the life source, Driesch calls by the Stagirite's term, "entelechy."²⁴

FURTHER DEMONSTRATIONS

For the existence of this entelechy Driesch advances two other proofs, one from the existence of so-called complex-equipotential systems within the organism, and the other from the historical basis of action in some organisms.

A complex-equipotential system may be described as a system in which "all the elements are *equally* able to form the same *complex* totality out of themselves."²⁵ The ovary of an animal, for example, is such a system, for each of the cells within the ovary, i. e., the eggs, are equally capable of giving rise under proper conditions to the complex whole of an adult organism.²⁶

²³ *Science and Philosophy of the Organism*, pp. 102-105.

²⁴ *Ibid.*, pp. 98-101.

²⁵ *Problem of Individuality*, p. 21.

²⁶ Such a system differs from a harmonious equipotential system, e. g., the blastula, wherein each member is equally capable of giving rise to any of the relatively simple organic parts of which the whole organism is composed. The division does not seem too precise, and at best refers to a difference in degree rather than in kind.

In the very fact that such a system exists there is nothing that is exclusive of a chemico-mechanical explanation of life, nor is there any such proof to be gleaned from following the development of a single member of such a system to the adult stage.²⁷ But if, taking the opposite course, we follow the tracks of such a system back to its origin, we shall find a different opportunity for profitable analysis awaiting us. Here we discover a startling fact: that all of the members of this system are descendants of a single cell, its *Anlage* in the technical German description.²⁸

If now we say that each cell of this complex-equipotential system contains a machine that is the source of the vaster machine we call an adult organism, we are faced with a rather embarrassing choice. For either we say that the *Anlage* itself was a machine, in which case we are maintaining the absurdity that a machine can divide almost countless times and still remain itself (an impossibility as we have already seen), or we are maintaining that the source of the machine is not the organization of the *Anlage*, and must, therefore, be a non-spatial cause not identical with the system itself.²⁹ Once again, therefore, our argument is carried irresistibly to the existence of an entelechy.

Thus the second argument is quite similar to the first, both being based ultimately upon the impossibility of conceiving any machine that periodically splits in half and yet remains identical through any number of such divisions. In our consideration of the third proof we shall meet with an entirely new aspect of the difference between an organism and a machine, and particularly is this true of certain operations characteristic of animals and men. It is in this latter area, the field where the divergences are greatest, that we shall find our proof.

There are two cautions which Driesch urges before beginning the examination of this proof. One is that the instinctive action of animals must be eliminated from consideration in the proof.

²⁷ I. e., nothing we have not already considered.

²⁸ *Problem of Individuality*, p. 22.

²⁹ *Science and Philosophy of the Organism*, pp. 147-150.

Instinctive motions are specifically perfect the first time that they occur, and such a motion may be mechanically explained, though with considerable straining of credulity.³⁰ Moreover, since the approach to this problem is biological rather than psychological, the methods used in studying animal and even human behavior cannot include introspection; Driesch, in short, adopts the method of the Behaviorists.³¹

Driesch concentrates his attention upon the phenomena of animal *action*, i. e., that phase of the behavior of animals that is learned. For just as some actions arise perfectly formed in kind upon the first adequate stimulus (though they may be perfected in facility later), so there are other responses to stimuli which do not arise, at least immediately, in answer to the first appropriate stimulus, but do so after many repetitions of the stimulus. The behavior of a nursing child is an instance of the first sort of response, and these we shall call instinctive. The tying of a shoelace is an obvious case of the second sort, and these we shall agree to call actions.

The determining character of an action, therefore, is due not to the immediate stimulus alone; at least, it must be posited that other stimuli during the life of the individual have also a determining effect upon the specific nature of this reaction. It is a behavior pattern with a history. If we had not excluded psychological description we could say that in action the behavior of the organism is modified by experience.³²

So far, this description of action could apply equally well to a machine as to an organism, for many machines are capable of producing actions determined by long-past stimuli. One of the most obvious cases of this kind is the phonograph, an instrument that is reproducing for us today the songs of a Caruso dead for a quarter of a century.

³⁰ *Problem of Individuality*, pp. 24-25.

³¹ *Science and Philosophy of the Organism*, p. 203. Driesch rejects the whole of introspective psychology, calling it a "pseudo-psychology." Cf. pp. 193 and 203. He does not deny the causal nature of conscious phenomena, merely agrees with the Behaviorists that they cannot be studied scientifically. Cf. p. 203.

³² This smuggling of psychology in through the windows is Driesch's procedure, not mine. *Ibid.*, p. 204.

Yet in this example of the machine that reacts on a historical basis we intuitively recognize that its behavior is vastly different from what we call action. The machine simply reproduces the stimuli which have been impressed upon it, whereas the organism does nothing of the sort. While the organism has its action modified by its history, the action cannot be said to be wholly determined by its past stimuli—there must be other specifying causes to account for the kind of an action produced.

More precisely, the principal difference between machine and organism seems to be that in the phonograph there is immediately set up a determined correspondence between one stimulus and one response. What is given out on subsequent playing back of the record is not only always the same, but it is the specific stimulus simply reproduced. In the case of an animal, however, what appears to happen is that, first of all, the response is by no means necessarily of the same kind as the stimulus, and moreover the various stimuli together with their previous effects seem to be broken down into elementary components and stored up to make a sort of reservoir of possible responses to situations.

That this is so may be seen even in such elementary types of action as the conditioned reflexes investigated by Pavlov in dogs. The production of the response of secreting saliva at the stimulus of ringing a bell, produced in the dog by ringing a bell while it was eating, is obviously a connection between what is ordinarily a mismatched stimulus-response team.

Again let us say, an animal tries to escape from a painful situation by three unsuccessful methods before achieving freedom by the fourth. If the animal has the power of learning, on subsequent occasions it will make fewer unsuccessful attempts, and finally will produce the successful response immediately.³³

Now nothing of the sort is found in machines. At most, changes of behavior in machines due to their history are quantitative changes due to some lingering effect in the machine, e. g., wear, magnetization, etc., and are analogous to the organic

³³ *Ibid.*, pp. 212-213.

phenomenon of fatigue rather than to the characteristic of actions that we have been studying.⁸⁴

Even more striking is the contrast between the responses of an organism and that of a machine with regard to the *wholeness of a stimulus*. For if a complex stimulus is impressed on a machine, each of the various elements will produce its own individual response; the stimulus will be to the machine the sum of the simple stimuli contained therein, the effect will be simply the sum of individual effects.

In organisms, the case is often entirely different. The animal reacts—at least in certain cases—to a stimulus as a whole; hence a small change in the stimulus may result in a drastic change in behavior, while a drastic change in the stimulus may produce no change in the response at all. The dog that, at the approach of its master, goes bounding down the street with joyous yelps may remain entirely unmoved or growling hostilely at the approach of anyone else. Even more remarkable is the behavior of a man in a conversation. Here the words, “Your brother is sick,” referring to a long-absent and little missed member of the family may produce an entirely different reaction in kind and degree than will the statement, “Your mother is sick.” Yet the only change in the stimulus is a change from the letters, “br,” to the letter, “m,” in the sentence, a change not at all in proportion to that of the reaction. On the other hand, if the hearer understands French, the sentence, “*Votre mère est malade*,” though a totally differing entity in its physical parts, produces the same effect as the English equivalent. The only explanation is that each complex group of sounds makes up, as a stimulus for the organism, a whole that is different from and more than the sum of its parts. Once again, therefore, we find the organism acting in a way that is only not different from a machine, but would be impossible in one.⁸⁵

On the basis of these three proofs, working out as they do to a single conclusion, Driesch rests his case for the reality of

⁸⁴ *Ibid.*, pp. 202-213.

⁸⁵ *Ibid.*, p. 214.

the entelechy. We can, it is true, add other indications of the truth of vitalism: from the facts of regeneration and healing, for example, or from the little knowledge of instincts that we have been able to gain. Still these *indicia* are not to be considered final, whereas the proofs as given are thought to be inescapable demonstrations.³⁶

Can we find out more about the nature of this mysterious agent in itself, and about the causal relationships linking it to the material components of the organism? Since we are engaged in an *a posteriori* proof, let us look at the causal link between body and entelechy first, and go on after the settlement of those questions to the study of the entelechy considered in itself.

HOW THE ENTELECHY CONTROLS THE ORGANISM

A primary difficulty seems to arise from the fact that the body of a living thing seems to submit to two different kinds of law; it is at once governed by the physical law that binds inorganic nature and by another group of laws unique to the biological kingdom. The first step in clarifying the relations of body and entelechy must be to ask to what extent the entelechy voids the physical law and how this is accomplished.

What can possibly be meant by saying that the organism is subject to physical laws? The implication here is that the living being is in some respect a machine, for physical laws are machine laws, based precisely upon the assumption that everything is made up of extended matter moving in space.³⁷ Physical laws, have for their function the statement of the energetic relations between one body and another, or between a body and its motion.³⁸

³⁶ *History and Theory of Vitalism*, pp. 214-215.

³⁷ For the purpose of our present analysis let us ignore the question of whether this matter is qualitatively the same or not. The ultimate hope of every mechanist is to reduce all matter to one common kind, e.g., the ether. Whether or not this is possible, however, makes little ultimate difference; the basic requirements of quantified matter and motion in space remain constant in all theories. *Science and Philosophy of the Organism*, p. 269.

³⁸ *Ibid.*, pp. 269-270.

Now because the body is obviously a material system whose parts, e. g., the cells, have a certain spatial relationship, it must be considered *in itself* as a machine, and whatever non-mechanical action it exhibits must be attributed to the entelechy. Thus the nature of the body itself explains its subjection to the mechanical laws, and its relation to the entelechy renders intelligible the appearance of new determinants. How far, however, does this modification go?

We have already answered that question in large part. We have seen that matter-creating causality and energy-creating causality, while *a priori* possible in the world, are not actually realized even in the organic realm, that is to say, that the principles of the conservation of energy and of matter hold true in living as in inorganic things.³⁹ Hence the type of causality left to entelechy is the individualising causality.⁴⁰ Driesch suggests, therefore, that the entelechy must interfere with the normal course of the natural laws only by guiding and arranging them for its own purpose.

To describe the mode in which such a thing may come about Driesch proposes three possible solutions. His own theory is that the entelechy might be supposed to *suspend* temporarily certain actions that would otherwise take place according to physical laws. This implies a double power within the organism, for in addition to being able to stop one action, and later, of course, to allow it to resume by lifting the suspension, the entelechy would be able also to exercise control over a "choice" of two different actions. If chemical compound "a," for instance, has the power of combining with either "b" or "c," but has a greater affinity for "b" under conditions of the non-living world, the organism may still allow a union to take place between "a" and "c" even when "b" is present by the simple expedient of suspending the reaction of "a" with "b."⁴¹

In addition to explaining how entelechy does modify the laws of nature, this theory has the advantage of accounting for many

³⁹ *Ibid.*, pp. 255-256.

⁴⁰ Cf. *supra*, pp. 190-191.

⁴¹ *Science and Philosophy of the Organism*, pp. 261-264.

events that do not happen. For example, it explains why the organism cannot become independent of its environment. Entelechy, as the suspension theory explains, does not create the difference that enables one substance to act upon the other, hence there will be no reactions between physical or chemical agents not already potentially reactive by nature. Nor can the entelechy create a substance it needs from elements that would not naturally cause such a result. All it can do is to interrupt and cause to resume a series of events that can take place according to nature's laws.⁴²

A second possible way in which entelechy might interfere with the mechanical laws of inanimate nature is suggested by Descartes' analysis of the mind-body problem. The mind, according to Descartes, cannot change the total energy in a dynamic system,⁴³ but could be conceived of as changing the direction of that energy. Since such an action ordinarily implies an expenditure of mechanical energy, it seems that such a solution requires the entelechy to be an energy-creating cause, a possibility that has been rejected already. In a later study of this possibility, however, Eduard von Hartmann has suggested that the energy required to effect this transportation of energy from one spatial axis to another might be drawn from the energy itself. Whether such a refinement is necessary is (to Driesch at least) questionable, since in any case the total amount of energy represented by a moving body remains the same, and the part of the principle of inertia dealing with the straight-line motion of moving particles is abrogated for organisms.⁴⁴

There is still a third imaginable solution to this problem. For the action of the entelechy might well be a purely negative one, a prohibition rather than a command. According to this

⁴² *Ibid.*, pp. 261-262.

⁴³ Knowing nothing of the later distinction made between kinetic and potential energy, Descartes evolved this solution to account for changes in direction of kinetic energy alone. Hence such a solution as the suspension of energy—a process that involves transforming kinetic into potential energy—would be impossible for him. Cf. *ibid.*, p. 273.

⁴⁴ *Ibid.*, pp. 272-275.

account the material particles would ordinarily follow their own courses except that they might be prevented from doing so in some respects, much as a beam of light is reflected from its natural course by a mirror. The role of entelechy would be something like a "Keep off the grass" sign in a park. This Driesch calls the "hypothesis of immaterial resistance."⁴⁵

To tell which of these theories is the one that corresponds to reality is, in the present state of knowledge, impossible. There are, however, certain indications that make possible some tentative judgments of their relative worth. For instance, the second explanation, since it seems to limit the powers of entelechy by nothing but the total of available energy, does not have the advantage presented by the others of being able to account for the activities the entelechy cannot perform.⁴⁶ And since the third theory restricts the power of the non-spatial agent more than any of the others, it is perhaps to be preferred; it is easiest to explain in this way the peculiarities of individual organisms due to their mechanical configuration as well as the universal features they exhibit because of their entelechy.⁴⁷

THE INDEPENDENCE OF THE ENTELECHY

If these are the most promising theories of the action of entelechy on organism, the causal relations in the opposite direction are still in doubt. Is the entelechy that causes these actions of the organism dependent itself on the material body, as being the result either of some special kind of living matter or of a particular configuration of chemicals that we call a living body? Before answering this question we shall have to deal with two preliminary points, the nature of a material substance and the existence of a living material substance.

It seems that all material substances have this characteristic in common, that they consist of simple substances existing beside each other in extensity. This characteristic holds true whether it is assumed that the mechanical or the dynamic view of reality is held. For even in the latter view, supposing that

⁴⁵ *Ibid.*, pp. 275-276.

⁴⁶ *Ibid.*, p. 273.

⁴⁷ *Ibid.*, p. 276.

matter is made up of forces emanating from indivisible, unextended centers, still the forces themselves are extended and the substantial complex exists in space in an extended way. And this is the only universal characteristic of matter. The other qualities of such substance may change from one body to another, but the requirement that they all alike must be extended does not vary.⁴⁸

In what sense, then, do we speak of a living material substance? A careful analysis of the scientific evidence on this point is scarcely helpful in our search for such a substance. True the scientists speak freely, for example, about assimilation, and this we presume to be the action of a living being increasing its substance at the expense of the components of its environment. However, on a closer look such a definition is seen to be mere assumption with very little basis in reality. Who could say, for example, at what point this presumed assimilation takes place, or what sort of mysterious process it might be?

The facts that are really presented to us by biochemistry inform us that the living organism is actually made up of a mixture of many different chemical substances, none of which, taken in itself, is alive or shows any of the characteristics of life.⁴⁹ Furthermore, not any one of the specific substances in the body by acting on food changes this into its own substance; this is always performed by another element, viz., an enzyme. The process of assimilation on its chemical showing turns out to be a pseudo-assimilation, and there is here to be found no sign of the existence of a living substance.⁵⁰

As a matter of fact there are many indications (and to Driesch not merely indications but proofs), that there can be no such thing as a "living, material substance." To say that there exists such a thing as a material, chemical, living sub-

⁴⁸ *Ibid.*, p. 276.

⁴⁹ Not that there are not chemical substances that are specific, in nature at least, to living things, although many of these substances can be synthesized outside living things, and probably there is no *a priori* impossibility concerned in synthesizing the others. In any case, however, the individual substances do not manifest to us any of the characteristics of organisms, e. g., nutrition, sensitivity, etc.

⁵⁰ *Loc. cit.*, pp. 290-292.

stance that "bears" entelechy would be to attribute extensity to the entelechy, for the one characteristic of material substance is extension. That entelechy is extended is impossible, otherwise the divisions performed in the embryo of the sea-urchin would have given very different results than they did. The fact that a complete organism was evolved shows that the entelechy must itself have been left whole and undivided by the division.⁵¹

Another argument against the "living substance" theory can be found in the strange consequences that follow from such a notion. Theoretically, we should be able to buy in the market, if the theory were true, "six pounds of lion substance, or a pound and a half of eagle substance, or three ounces of earth-worm substance."⁵² Now you might be able to buy six pounds of lion *meat*, but this is merely a mixture of proteins, fats, sugars, and other non-living substances—a collection of elements, not one "homogeneous chemical material which is supposed to represent the 'being-a-lion.'"⁵³

But still a third difficulty prevents Driesch from considering entelechy as the result of a material substance. If such were the case, entelechy would, of course, be itself material and as material would be subject to changes by material energy. However it has already been established⁵⁴ that the reaction of an entelechy to body is not affected by such a transfer of energy. Once again, therefore, the theory of a living matter as a cause for entelechy fails to account for the facts.⁵⁵

But if there is no one living substance that can be considered as the cause of entelechy, would it not be possible to assign the origin of entelechy to a combination of compounds arranged in a typical "constellation"? Once again our answer must be negative. For the human mind cannot rest content with the explanation of a new elementary factor out of simply nothing; the new factor must have pre-existed somehow, either as a potentiality of one of the substances in a constellation or as a

⁵¹ *Ibid.*, pp. 292-293.

⁵³ *Loc. cit.*

⁵² *Ibid.*, p. 293.

⁵⁴ Cf. *supra*, p. 201.

⁵⁵ *Science and Philosophy of the Organism*, p. 295.

substance itself that becomes active only under certain conditions.⁵⁶ In either case, however, we are once again reducing entelechy to a material thing with the same contradictions seen above.⁵⁷

For Driesch, therefore, the entelechy, while dependent in its actions upon a material substance, is not dependent for its existence upon the body. "The activity of an architect depends on the existence of stones. But would you care to say that the architect's existence depends on—stones? A heap of stones without an architect is a heap of stones, and the matter of an organism without entelechy is an amount of matter."⁵⁸

NATURE OF THE ENTELECHY

Obviously to say that entelechy is neither a material substance nor the effect of a material substance is not to deny that entelechy is in itself a substance.⁵⁹ As a matter of fact, the reasoning proves that entelechy *must* be considered as a substance, since the effects we attribute to it must be produced by some substances, and we have seen that the extended substances of the material world could not be the causes of such behavior.⁶⁰

But what sort of substance can this be? What are its properties? Is it essentially a psychic or non-psychic thing? Is the same entelechy common to many bodies, or does its individu-

⁵⁶ Thus the appearance of electricity produced by rubbing a glass rod must be explained by supposing either that the rod has an electric potential (E) to begin with, or that there exists a substance of electricity (electron) that is broken loose in the act of rubbing.

⁵⁷ *Science and Philosophy of the Organism*, p. 295.

⁵⁸ *Ibid.*, p. 296. The similarity of this figure to Plato's "pilot and ship" is striking. Indeed Driesch borrows a Platonic argument from *Alcibiades I* (128a-129b) to prove the independence of the entelechy, viz. the living substance is distinct from that which belongs to it; now the body is said to belong to the substance, for we say that a dog has (not is) paws, teeth, body, etc. Hence the dog *is* its entelechy. The body is not the dog but belongs to the dog. *Ibid.*, pp. 312-313.

⁵⁹ I.e. a substance "in the sense of something irreducible which remains the always unchangeable bearer of its changeable qualities." *Ibid.*, p. 297.

⁶⁰ *Ibid.*, pp. 300 and 324.

ality correspond to that of the material organism? Is it immortal? If so, in what sense? To some of these questions there are easily available answers; to others, the answer is impossible or at least out of reach at present. Let us begin by seeing what can be known of the nature of the entelechy.

The only way we can know entelechy is by means of the effects produced by it on the body. This causality, "individual causality," consists of creating in a material system a complexity of relationship not belonging to this system of itself. All the effects of entelechy are always complex "manifolds" that are extended either in space—the organism itself—or in time—the actions of the organism. The entelechy itself, therefore, must in some fashion contain this organization; it must be a "manifold" itself.

The kind of manifoldness the entelechy possesses must differ from the extensive manifoldness characteristic of the material substance. The first and second proof both show that the entelechy must be a non-spatial cause; indeed, both are founded upon the impossibility of dividing an extended manifoldness without taking away any of its parts. The nature of an entelechy, therefore, could be described as an "intensive manifoldness."⁶¹

But such a definition of entelechy is merely a sketch of this non-spatial substance in a state of potentiality. For just as an architect is an architect *in actu* only in the act of building, so entelechy reaches its actuality only by acting on matter. "As far as it is entelechy *actu* it is causality of the *individuating* form."⁶²

The characteristic of inextensiveness in an entelechy raises an interesting point about its divisibility: how can an unextended substance be divided? Yet apparently the entelechy is so divided, e. g., in the ovary.⁶³ Nevertheless the division of a non-spatial system is impossible; the very idea is *a priori* contradictory. It can be only the material organism that is divided,

⁶¹ *Ibid.*, pp. 245-247.

⁶² *Ibid.*, p. 324.

⁶³ Cf. *supra*, second proof, pp. 195-196.

the entelechy itself is not. Here is the first bit of evidence to solve the problem of individuality of the entelechy. There are not as many entelechies as organisms.⁶⁴ Driesch, as a matter of fact, cannot escape the conclusion of a sort of world-entelechy. But of this we see a little more later.

One more property of entelechy follows from its non-spatial character: it cannot be confined to any one place in the body. Descartes' localization of the soul in the pineal gland is unnecessary. True, there are some parts of the organism that seem to be acted upon by entelechy while others do not, but this is merely a matter of points of relation and does not justify calling any of these centers of activity the "seat" of the entelechy.⁶⁵

Nor is there any justification for indulging in the pseudo-psychological assumption that every entelechy must be conscious or psychic. Consciousness we can affirm certainly only of ourselves. Nonetheless, Driesch accepts provisionally the Aristotelian division of souls: the nutritive soul is found in all living organisms, the sensitive soul is found as the source of sensation and instinct in all animals, and finally the "psychoid," as the seat of reason and of "actions," is found in the higher animals and in man.⁶⁶

Here again we run headlong into the problem of the unity and multiplicity of the entelechy. In this case we have postulated a plurality of entelechies for a single organism,⁶⁷ whereas the unity of the organism, and particularly the unity of the Ego, seem to demand the oneness of entelechy. Besides, looking at the problem from the aspect of the many organisms produced

⁶⁴ *Science and Philosophy of the Organism*, pp. 298-299.

⁶⁵ *Ibid.*, p. 299.

⁶⁶ Thus departing from Aristotle who attributes the rational soul to man alone. Driesch's argument is that the higher animals possess more than mere instinct inasmuch as they are able to learn by experience. This fact entitles them to a memory, but it hardly seems to require their being intellectual besides. *Ibid.*, p. 335.

⁶⁷ Another indication of such plurality Driesch finds in such "stupid" acts of entelechy as the development of half an embryo when the other half can never mature (as in Roux's experiment.) This argues an organization of entelechies, each one performing its appointed task in relative isolation from the others. *Ibid.*, p. 280.

by one, we are faced with the metaphysical absurdity of supposing that non-spatial entities can be divided or even fused.

To Driesch, the conclusions from these indications seems to be the existence of one super-personal entelechy, which, however, exists in two different states: "in the one-modus and the many-modus." The apparent division of entelechies can then be regarded as merely a multiplication of the modes of the one entelechy; the facts of the unity of organic life can be accounted for by the one basic *ens* that is the entelechy.⁶⁸

Besides the ones mentioned, there are many other indications of the simultaneous unity and multiplicity of the entelechy. The unity of the species and even, if we accept the theory of evolution, of all life, find in this unity of entelechy their best explanation.⁶⁹ Even the whole of empirical reality exhibits that wholeness of order that we seek to explain in organisms by entelechy.⁷⁰ Finally, such psychological phenomena as split personalities are understandable only in terms of a single entelechy that has been modified in its modes.⁷¹

THE FINALITY OF ENTELECHY

So far we have not said much about the place of finality in Driesch's treatment of the problem of life, and yet it is apparently in the nature of finality that Driesch ultimately finds the clue to the basic differences between organism and machine.⁷² The reason for this omission Driesch himself makes clear: the notion of teleology has been suspect in the physical sciences from the time of Newton. Justified or not, this skeptical attitude can easily be understood, for only too often arguments from teleology have been based on an extension of the conscious end-seeking of man.⁷³ However, if the word "end" is correctly understood in its analogical sense as that toward which an agent has a tendency, there is no necessary objection

⁶⁸ *Ibid.*, pp. 331-332.

⁷⁰ *Ibid.*, p. 324.

⁶⁹ *Ibid.*, pp. 332-333.

⁷¹ *Ibid.*, p. 334.

⁷² *History and Theory of Vitalism*, pp. 1-7 and 176-177.

⁷³ *Science and Philosophy of the Organism*, p. 243.

to its use in biology, since all natural agents tend to act in one way rather than in any other. To exclude the element of conscious desire, Driesch prefers the term "*causa finalis*" to the more anthropomorphic "purpose."⁷⁴

The two outstanding examples of goalward tendencies in the non-human realm are to be found in organisms and in machines. Ordinarily we do not speak of purpose with regard to natural things below the level of the organism, since purpose refers principally to processes, and non-living things are inert. What then is the difference teleologically between a machine and an organism?

The actions of the parts of a machine are end-seeking only in virtue of two determining facts: it is in terms of the whole alone that the part has meaning, and the purposiveness of individual actions is derived only from their positions in the whole. Each part acts in its singularity, and the action of the whole is analyzable into the sum of these individual actions.⁷⁵

On the other hand, the end-seeking of the organism cannot be broken down into the action of the parts, for parts can be removed and the end is reached anyway. Even less can the action of the parts in relation to the end be reduced to a function of position, for the same part may fill any number of duties. This sort of teleology Driesch calls *dynamic*, that of the machine, *static*.⁷⁶

But is there anything in the end itself that would explain the difference in the characteristic end-seeking processes of machines and organisms? Though not a definite answer, the following passage may give a clue to Driesch's thoughts on this problem, the root of any theory on the nature of life:

Let us then borrow our terminology from Aristotle and let that factor in life phenomena which we have shown to be a factor in true autonomy be called *Entelechy*, though without identifying our doctrine with what Aristotle meant by the word *ἐντελέχεια*. We shall use this word only as a sign of our admiration of his great

⁷⁴ *Ibid.*, p. 323.

⁷⁵ *History and Theory of Vitalism*, p. 4.

⁷⁶ *Ibid.*, p. 5

genius; his word is a mold which we have filled and shall fill with new contents. The etymology of the word *ἐντελέχεια* allows us such liberties, for indeed we have shown that there is at work a something in life phenomena "which bears the end in itself." *δ' ἔχει ἐν ἑαυτῷ τὸ τέλος.*⁷⁷

II

EVALUATION

Remarkable and striking as the work of Driesch has been in examining the aspect of biological problems most obviously inexplicable on physical or chemical grounds, that work has commanded more respect than agreement among his fellow biologists. Among philosophers who still hold to the specific distinction between the living and the inanimate, Driesch's following is considerably larger.⁷⁸ From a human point of view, this situation is entirely understandable, inasmuch as, in view of the tremendous reputation enjoyed by the empirical sciences, any scientific support for a philosophical opinion is apt to seem to philosophers and public alike a sort of practical vindication of the reputedly over-abstract and unreal philosophic opinion. Long before this, however, past experience should have warned philosophers to beware of scientists before looking carefully over their gifts. The obvious philosophical weakness of various "scientific" arguments for the existence of God has probably helped to make more agnostics and atheists than all anti-theistic arguments combined. As in that other case, the argument of Driesch for an "entelechy" rests upon the inadequacy of physical theory to explain a given set of facts, to account for which, therefore, another sort of cause is postulated. We should be sure that the impossibility of such a physical or chemical explanation is really an intrinsic impossibility, and not merely a reflection of our present ignorance.

There are three basic points on which disagreement with

⁷⁷ *Science and Philosophy of the Organism*, p. 106.

⁷⁸ This is merely a personal opinion, a general impression that I got during the course of my research on Driesch.

Driesch might be possible. One of these can be found in his basic philosophical assumptions, the second in his argument against the mechanical interpretation of the actions of the organism, and the third in his analysis of the relation that exists between entelechy and the material organism. This chapter will attempt a brief evaluation of each of these questions.

COMMENTS ON DRIESCH'S NOTION OF CAUSALITY

Driesch's principal philosophic presupposition is concerned with the nature of causality. And here we can distinguish three elements within his treatment:

First, Driesch accounts for the origin of the idea of causality by claiming that the notion has its beginning in our experience of the relation between ideas rather than in our experience of the relation between things. Thus the necessary implication of the idea of the genus within the notion of the species, e. g., of "animal" in "man," first gives us the idea of a necessary sequence proper to the definition of causality. This idea of a necessary sequence is then transferred on the basis of our experience to relations in the extra-mental world.⁷⁹

Second, Driesch's definition of causality includes three elements: the notion of sequence in time, the element of dependence, and the trait of real applicability to the empirical world. Hence Driesch shows himself as a realist in matters of knowledge, and as an intellectualist in his affirmation of the intelligibility of the real world.⁸⁰

Third, there are four basic kinds of causality distinguished by Driesch:

1. Singular causality, whereby a spatial system is influenced in its constituents of number, motion, or arrangement by another external spatial system.
2. Matter creating causality, whereby the number of elements within a spatial system is increased by the intervention of a non-spatial system.

⁷⁹ Driesch, *Science and Philosophy of the Organism*, p. 319.

⁸⁰ *Science and Philosophy of the Organism*, p. 317.

3. Motion creating causality, whereby the elements of a spatial system are reduced from rest to motion by a non-spatial cause.

4. Individualizing causality, whereby a spatial system is given a new and more complex arrangement (without the creation of matter or motion) by a non-spatial system.⁸¹

Without attempting a detailed examination of Driesch's account of the origin of the idea of causality, we might remark that it is rather dubious whether a concept of an *ens rationis*, a relation existing between ideas, can be established with any certainty to apply outside the realm of ideas. It is interesting to note that historically it was this very difficulty (about applying to things a concept that refers only to related ideas) which bears a large part of the responsibility for the origin of modern idealism in Berkeley.⁸²

Driesch, it is true, considers it as an established fact that the relation of dependency is found in the outside world as well as among ideas, but it is noticeable that the external material world that Driesch discusses later is a mechanical one where causality is reduced to an absolute minimum. And it is equally noticeable that the *locus* of any causality characteristic of the organism is moved from the material body to a substance more nearly resembling an idea in its existential status.

Assuming, however, that the real and universal applicability of causality in becoming can be established, even if not on Driesch's grounds, we must examine the kinds of causality enumerated by Driesch to see what this division will tell us. The first and obvious characteristic of this distinction is that all the kinds of cause enumerated are subdivisions of efficient causality, and this in spite of the fact that the origin of the idea of causality is a sort of formal causality for Driesch. At any rate, Driesch, in dealing with the external world, is con-

⁸¹ *Ibid.*, pp. 320-321.

⁸² Cf. Etienne Gilson, *The Unity of Philosophical Experience* (N. Y.: Scribners, 1950) p. 194.

cerned principally with extrinsic causes, a factor that influences his treatment of the entelechy later on.

A second observation I would like to make concerning Driesch's division of causality is that even in the genus of efficient cause the distribution can be considered adequate only if we assume a mechanical point of view. The three things assumed by Driesch to need explanation by either an extended or an unextended causal system are precisely the elements that the mechanist finds basic to the material world, a multiplicity of particles, motion in those particles from one place to another, and the spatial configuration of these particles. Since Driesch's view of the organism is not primarily a mechanical one, it seems that this is not the place to enter into an extended discussion of mechanism. However the ontological emptiness of a machine is apparent. The machine as such has no activities and no being; whatever it may seem to have of either it has in virtue of sources external to itself. Driesch's statements are not uniformly mechanical, since he speaks of various chemical forces and of various other qualitative forces of light and matter.⁸³ Nevertheless he is explicitly in sympathy with the mechanistic ambition to explain even these forces in terms of extended matter, locomotion, and position.

A third brief observation might be made concerning Driesch's division of causality. Of the three kinds of effects possible to non-spatial causes—number of particles, motion, and position—only the last is considered as being actually realized in the experimental world. It is very difficult to understand, for me personally at least, how such a cause can be the cause of the configuration of particles without being the cause of the coming-to-be of that configuration in any way whatever. And since the only way particles can assume a position they have not had before is either by being created there, or by being moved there, it is obvious that according to Driesch the non-spatial system is just such a cause of being but not of becoming.

All of these difficulties in Driesch's theory of causality, it

⁸³ *Science and Philosophy of the Organism*, pp. 97-98.

seems to me, are the result of a certain conflict that must inevitably arise between experience and the assumptions necessary to the experimental method, between the philosophic and the empiriological elements in man. The philosophic experience teaches us that there are certain qualities in reality that are distinct from and in a sense superior to any geometrically understandable arrangement of discrete elements, otherwise the geometrical shape itself would be not only unintelligible but completely unknowable. On the other hand, the physicist, being himself incapable of the direct generation of most natural effects, and observing that the only way for him to produce such an effect is by bringing the proper cause into spatial conjunction with the appropriate matter, in a way is forced to deal with qualitative features in terms of geometrical figures. Driesch almost instinctively recognizes, therefore, that there are aspects of reality that are not intelligible from the point of view of undifferentiated matter in a state of locomotion, but his scientific background seems to coerce him into regarding the material co-efficient of these as a machine-like arrangement of parts. In a way this confusion already implies an entirely immaterial cause of such phenomena and the divorce between being and becoming that we have already noticed. However unlikely his theory may be otherwise, the separated entelechy is the only possible solution to Driesch's epistemological difficulties.

In spite of criticisms here made of Driesch's outlook on causality, his insistence upon the objectivity and necessity of the relation is without question necessary to a rational and realistic experimental science. Our quarrel is not with these characteristics, but with the restriction of their application to the purely mechanical sphere in Driesch's science.

DEMONSTRATIONS OF THE ENTELECHY

In his application of these concepts Driesch proceeds to show that there must be a non-spatial cause of a spatial configuration of elements within the organism by a process of elimination.

Having decided against the normal operation of any matter-creating or motion-creating causality on the basis of the principles of the conservation of matter and of the conservation of energy, Driesch proceeds to show by a series of three arguments that what he calls "singular causality"—the influence of one material system on another—does not account for the observable data in organisms.

First, no mechanical cause, either physical or chemical, can account for the element of purposefulness exhibited in an organism when divided as an embryo. Thus a quarter of the embryo of the sea-urchin, separated artificially, developed normally although on a small scale. Obviously the parts of this embryo are not determined by their nature to produce any one part of the fully developed organism, because a part that develops into one part in the case of the undivided embryo develops into another in the case of the divided one. Nor can this purposefulness be accounted for on the basis of external causes, most of which are non-directional and the rest of which are known to have no specifying influence in certain kinds of embryonic development. Nor can there be any structural forces, internal to the organism but external to the parts, accountable for the differentiation between what becomes of the part in one case and what happens to it in another. If this structure were purely physical, it would be destroyed by the divisions; if chemical, its results would be geometrically regular like a crystal, and all parts having a similar composition would be alike in structure. No spatial system, therefore, is capable of accounting for the structure of the adult organism, hence there must be a non-spatial cause.⁸⁴

Second, in a similar way the "complex-equipotential" system of the ovary is made up of numerous cells, all descended from the same parent cell or "*Anlage*." Moreover, each one of these cells has basically the same potentiality as all of the others and as the *Anlage* itself—the power of developing into a complete organism. If, then, the living organism is a machine, it follows

⁸⁴ *Ibid.*, pp. 88-106.

that the *Anlage* and its daughter cells are machines too, and if this is true, the consequence is that a machine can be divided indefinitely, and still retain its nature as the same machine—an obvious impossibility. The only alternative is a non-spatial cause different from the spatial system itself.⁸⁵

Third, an analysis of stimulus-response reactions in the learned (as opposed to instinctive) actions of animals also reveals the difference between the animal and a machine. Even if the examination is carried on from a behavioristic standpoint, it remains true that the learned reactions to stimuli differ from modifications in the behavior of a machine due to past stimuli (e. g., in a phonograph) in the following particulars: that the reaction of the machine thereafter is fixed and identical with the stimulus that set up the new behavior pattern, whereas the changed reaction of the animal is not necessarily identical with the stimulus that set up the pattern but is governed by a specific end of the animal's behavior, and at least the nature of the response is entirely different from that of the stimulus. Moreover, the animal responds to the stimulus as a whole, whereas the reaction of the machine varies in exact accordance with the variation of the parts of the stimulus. Thus it is obvious that these learned actions of animals differ essentially from anything that is produced by a spatially organized system (a machine), and must, by elimination, be caused by a non-spatial cause.⁸⁶

Insofar as a scientific proof of the differing natures of the living and non-living is possible, Driesch's work is certainly such a proof. However, no proof of the nature of a thing can be based entirely upon experimental science, inasmuch as these sciences deal solely with the interconnections of the observable. If therefore a really apodictic proof of the non-mechanical nature of the organism is to be achieved, it seems to me that it depends upon a *philosophic* analysis of the machine, an analysis that will reveal some facet of mechanical operation that is completely incompatible with the behavior of living

⁸⁵ *Ibid.*, pp. 147-150.

⁸⁶ *Ibid.*, pp. 202-214.

things. Obviously Driesch tries to perform just some such analysis. Furthermore, if we are speaking of a purely physical machine, i. e., one in which the differentiation between the parts is solely a differentiation of position and shape, then Driesch clearly succeeds in his analysis, for it is just such an organization, e. g., in a printing press, that cannot be divided without being destroyed. However, if the organization under discussion be an organization of chemical substances, Driesch's case is not quite so clear. The difference between the chemical and the physical machine is this: that a shape, when it is divided, is no longer the same shape, but a chemical substance can be divided into extremely small parts without altering its nature or its basic activities. A division of the extension of a thing certainly changes the extension, but it does not necessarily change anything else. Supposing, therefore, a polar chemical organization within a living cell, it is conceivable that very many divisions could take place along a certain axis without destroying the basic organization, and consequently without destroying the chemical machine. In this case, therefore, Driesch supplies the lack of intelligible necessity with certain observable consequences of chemical organizations within inanimate things, viz., that chemical organizations always have a regular, geometrical form, as in crystals, and that parts with chemically identical natures should have the same shape. Now both of these consequences may seem highly probable to us, and indeed it may be that in nature they are absolutely necessary, but their necessity is by no means obvious to us. Indeed, in the second case, since the varying physical structures of the organism are presumably produced by the interaction of various chemicals within our presumed machine, varying interactions would tend to produce differing structures, even though the basic chemical substance out of which the structures were formed were the same. These observed differences may be enough to force Driesch to conclude that the organism differs from the physical and chemical machines found in inanimate nature, but they are not enough to show that those differences

are and must be essential. An indication they may be, even a proof to the degree that scientific proof of the problem is possible; but since certain of the impossibilities supposedly resulting from the hypothesis that the organism is a machine are merely statements that spatial systems do not produce such results, and not really demonstrations that they cannot, the certainty produced by this proof is not of a philosophic level.

Pretty much the same shortcomings show up in Driesch's third proof for the existence of an entelechy. It is quite obvious that the behavior of animals in response to external stimuli differs considerably from anything found in the non-living world. It is equally clear that Driesch has with considerable skill selected and pointed out some of the differences observable between the two classes. Unfortunately it is not so obvious, at least not from Driesch's analysis, that the differences discussed by Driesch are of an essential nature. They are simply disparities of operation that do, *de facto*, exist between mechanical and living beings. I do not say that a case could not be made out that some of the differences mentioned by Driesch really are essential; I think that this is particularly quite possible in the case of the response on the part of the animal organism to the *wholeness* of the stimulus. What I do say is that Driesch, unhappily, does not make the essential character of the difference clear. The point of the reaction to the stimulus on the part of the organism is that from a purely mechanical point of view, or from any material stand-point at all, this wholeness does not even exist; the unity, e. g., of a sign, is a meaningful unity and can only exist on an intentional level. What Driesch succeeds in proving, consequently, is that animals act by means of knowledge, a conclusion so obvious that even many materialists, like J. B. S. Haldane, admit its validity.⁸⁷ What Driesch might do is to show that knowledge can in no way be considered a mechanical or non-vital action. However Driesch himself makes this approach impossible by what seems to be a purely

⁸⁷ Cf. J. B. S. Haldane, *Marxist Philosophy and the Sciences*, pp. 153-154.

gratuitous assumption of the behavioristic methodology.⁸⁸ From a behavioristic viewpoint, it seems to me slightly inconsistent of Driesch to bring into evidence a conscious unity while throwing out consciousness. In short, Driesch is once again working on the periphery of an apodictic proof, dealing with truly essential differences in behavior without showing why the disparity is really specific. Once again we might say that Driesch really proves his point, but that the proof as it stands lacks certainty.

THE NATURE OF THE ENTELECHY

In a way, Driesch's proof for the existence of the entelechy, as well as his rather mechanistic view of the nature of material reality, are responsible for the development of his views concerning the nature of the relation of entelechy to material organism and the nature of the entelechy itself. Of these conclusions, the most important are those having to do with the nature of the entelechy considered in itself.

First of these conclusions is the unextended character of the entelechy. This follows from the fact that a division of the organism does not destroy the wholeness of the entelechy, as such a division would do if the entelechy were extended.⁸⁹

Second, the entelechy is not dependent for its existence upon any body. This Driesch proves indirectly by a *reductio ad absurdum*. If the entelechy did not exist independently, then the body would be the cause of the entelechy, and this would in turn involve three results contrary to fact and reason:

a) The entelechy would be itself extended and hence divisible. But this, as we have seen, is not true.⁹⁰

b) There would have to be a kind of "living substance" to bear the entelechy. But the "living substance" turns out to be simply a mixture of highly complex but quite obviously inanimate chemicals.⁹¹

⁸⁸ As we noticed before, Driesch is himself unable to resist the temptation of explaining how we are able to understand the behavioristic proof by smuggling in a little introspective psychology. Cf. *Science and Philosophy of the Organism*, p. 204.

⁸⁹ *Ibid.*, p. 293.

⁹⁰ *Ibid.*, p. 293.

⁹¹ *Ibid.*, p. 293.

c) The entelechy, as the result of a material thing, would be material and subject to alteration by material forces. This, however, is not true.⁹²

Pretty much the same objections are valid if we consider the entelechy as the result of a constellation of elements—at any rate the first and third impossibilities still hold.

As against the Aristotelian position that there must be some sort of activity independent of matter before an existence independent of matter can be postulated, Driesch objects that this principle is not universally true. The architect does not depend for his existence upon bricks, though he could not act if it were not for the existence of these same bricks.⁹³

Third, the entelechy is an “intensive manifold,” since it produces a spatially complex result without being extended itself.⁹⁴

Fourth, it is not “located” in any one part of the body. This is once again the result of its lack of extension.⁹⁵

Fifth, Driesch embraces a somewhat neo-Platonic view of the unity of the entelechy. The impossibility of dividing the entelechy when the organism reproduces, and the obvious fact of unity in the universe lead Driesch to an assertion of a sort of world-entelechy—a super-personal source of unity in the universe. Again, the multiplicity of organisms and of levels of function even within one and the same organism coax an admission of multiplicity of modes within this unified entelechy.⁹⁶

It takes Driesch the whole of a two-volume work to establish his proofs of these points, and it seems a little presumptuous to pass judgment on his conclusions in such a brief discussion. I would like, so far as possible, to limit my comments to the second point, the independence of the entelechy.

One point that immediately strikes us in connection with Driesch's discussion on this subject is a peculiarity in his idea of substance. His speaking of the impossibility of buying lion-substance, as distinct from the composite that is lion-meat, in

⁹² *Ibid.*, p. 293.

⁹³ *Ibid.*, p. 296.

⁹⁴ *Ibid.*, pp. 245-247.

⁹⁵ *Ibid.*, p. 299.

⁹⁶ *Ibid.*, pp. 331-332.

the market place manifests an underlying supposition that the unified substance must be qualitatively homogeneous. Within a particular philosophic system such an assumption might be consistent, e. g., within the mechanistic system where qualities are regarded as functions of extension. To make this assumption even within that system, however, is to assume that we know the nature of the substance before we know the nature of its effects, a supposition that is contrary to all of our experience. The one conclusion that can be reasoned to with certainty concerning substance is that it exists in itself, and the one substance of which we have a direct experience is not qualitatively homogeneous in either its spatial or its temporal extension. A philosophy that makes any such presuppositions about the nature of reality does not wait for the evidence to decide whether or not there is a difference between the physical organism and the substances of the inanimate realm, the question is prejudged in the principle. For either substance is homogeneous and thus quite dead, or else the organized body is not a substance and can be only a machine. The question in that case is not, "Is this organism a machine?" but, "Where did this organic machine come from?" And even this question presents an already settled pair of alternatives, for the ontological emptiness of the machine as such is bound eventually to drive causal explanations of such systems back to some non-spatial cause. The same relentless logic that so often drives a basically mechanical philosophy into idealism is operative here too.

In a way the same basic supposition is visible in Driesch's arguments that if the entelechy were dependent for its existence upon the body, it would be material and extended, a result that is impossible on the basis of his experiments. Here the immediate difficulty seems to be in a univocal use of the terms "material" and "extended," as being synonyms for the word "body." Hence when Driesch says the entelechy cannot be material or extended, he means that the entelechy cannot be a body like the body it produces. It is not perfectly obvious that we should use these words only in the restricted sense. We might easily refer to the art of a painter as being a material

extended art, not only insofar as the painter is an extended thing, but insofar as the exercise of the skill involves the use of severally spatially separated parts of the body. It would be ridiculous, however, to talk of the skill itself as a body that inhabits the body of the painter, or to say that if we guillotine the painter we chop off a piece of his art at the same time. The art is material and extended because it depends on the existence of a material man, but not because it is itself a body of determinate size and shape. Similarly the art is divided when it is possessed by several painters, although there is no way of drawing a diagram of how the art is to be cut up when it is apportioned among the many artists. The art in this case would be said by Aristotle to be material and extended and divisible accidentally, as opposed to the body of the painter which is said to have these characteristics by its very nature.²⁰

Such an alternative seems not even to have occurred to Driesch, and it is worth while seeing why. The argument he gives is that an effect produced by the body must be of the same nature as the body, hence material, extended, divisible in precisely the same way as the body is itself. Clearly it is true of the efficient cause that it cannot produce a being of a higher order than itself, and it seems to be this fact that leads Driesch astray. For as we have already seen, Driesch in his preliminary treatment of causality analyzes only *extrinsic* causality. Consequently the sort of accidental materiality that might arise in a being from dependence on a cause that remains in the effect (in this case, from a material cause) could not possibly occur to Driesch in view of his somewhat truncated view of causality. And this abbreviated outlook on the possibilities of dependence in existence might be traced (though Driesch himself does not derive the thought through these channels) to his mechanistic basic outlook, an outlook that begins by searching for being and action in something outside of the being and agent.

Digressing a moment from the nature of the entelechy as it

²⁰ Aristotle, *Physics*, II, ch. 3, 195a 34-36.

is related to individual entelechies, we can notice a similar bias arising in Driesch's opinion concerning the universal entelechy. In some fashion this affirmation of a universal entelechy is merely a recognition of the fact that the presence of unity and determinate action in a world marked by potentiality and imperfection demands the presence of an efficient cause, actual and perfect, distinct from the corporeal world. But Driesch carries the argument to the point of identifying the unity of this physical universe with that of the immaterial cause, of reducing the actions of material beings to the actions of the entelechy. In this way, Driesch robs the whole material world of any claim to agency, to intelligibility, and eventually to being.⁹⁸ At least we might say that Driesch so pilfers reality from the corporeal world in his conclusions were it not for the fact that the mechanism assumed for practical purposes by the physical scientist implies, in its philosophical form as a first principle, the ontal vacuity of matter that is reflected in such a philosophy's conclusions.

To return to our discussion of the entelechy of the organism, we have seen that Driesch's argument for its independence is a negative one that suffers from the fact that it overlooks one of the possible alternatives; however, the question still arises as to whether or not the conclusion is correct, even if the argument is not wholly adequate to establish that correctness. The dialectic behind Aristotle's position that the existential status of a being is reflected in its operational independence would be a needless digression here.⁹⁹ Actually the truth of the principle is based on a state of affairs recognized by Driesch himself: the fact that whatever is in the cause can be reflected in the effect, but that nothing else besides what is actually present in the cause can appear in the effect. The principle does not claim that every action of an independently existing being will be independent, but simply that some of them are, and that it is by means of the independent acts that we can know about the

⁹⁸ This fact is even recognized by some of Driesch's fellow vitalists. Cf. J. Arthur Thomson, *The System of Animate Nature* (N. Y.: Henry Holt, 1924), p. 170.

⁹⁹ For this proof, cf. St. Thomas Aquinas, *De Anima*, art. 13.

independent existence. In Driesch's own example of the architect whose activity depends on bricks, but whose existence does not, it is quite clear that the architect is a complex being who has certain activities that have nothing whatever to do with bricks, and even has certain activities as an architect that do not involve the *actual*, as opposed to the intentional existence of bricks. If it were not for the existence on either the intentional or actual level of some sort of building materials, the existence of the architect *qua* architect would be impossible. Furthermore the only way that Driesch knows that the architect goes on existing with or without bricks is that the man goes on acting with or without them.

Applied to the problem of the organism this principle insists that not merely the effect but the operation by which the effect is produced is material, insofar as the operation involves the transportation and qualitative change in food and the spatial disposition of the qualitatively differing parts. There is simply no activity in the case of most living things that bears witness to an independent existence of an entelechy different from the organism itself.

It is possible to make out a case for the immateriality of thought as an operation,¹⁰⁰ although it is not within the compass of the present treatment to do so. On this supposition, however, Aristotle points out that the soul that possesses such an activity is separable from the body. Even on this basis, it is simply impossible to account for men as spiritual beings that happen to be related to a body as its efficient cause. Even if it were not for the fact that certain operations that belong to the ego are operations that involve the body (i. e., the sensitive powers), it would still be the case that the union between an independently existing soul and its machine-like body would be contrary to the proper order of being. St. Thomas Aquinas says:¹⁰¹

¹⁰⁰ Aristotle, *De Anima*, III, ch. 4, 429a24.

¹⁰¹ *De Anima*, art. 1, trans. by Dr. John Rowan.

This position is untenable. . . . Inasmuch as the human soul has an operation transcending the material order its act of existing transcends the body and does not depend on the body. But inasmuch as the soul is naturally capable of acquiring immaterial knowledge from material things, evidently its species can be complete only when it is united to a body. For a thing's species is complete only if it has the things necessary for the proper operation of its species.

St. Thomas explains this necessity of the body for the sake of knowledge more fully in another passage dealing with the Platonic theory of knowledge: ¹⁰²

Now according to this theory, it appears that no explanation can be offered as to why the soul is united to the body. For (*if the body does not contribute to the knowledge of the soul*) this union is not for the sake of the soul, because the soul when it is not united to the body can still exercise its own proper operation, whereas its proper operation is impeded by its union with the body. Similarly, according to this view, it cannot be argued that the union of soul and body exists for the sake of the body, for the soul does not exist for the sake of the body, but rather the body for the soul, because the soul is nobler than the body.

The question of the living substance, therefore, eventually depends upon the being that is the final end of the agent's action, in the sense of that for the benefit of which the agent acts, since that end is the agent itself. In the case of those living things that manifest the vegetative and sensitive operations only, the beneficiary is obviously the organism as a material being. On the supposition that the immaterial mind has an end that is not the end of a material thing, the "entelechy" or soul of an intelligent being could be considered as an independent agent, but *de facto* in the case of the material intelligent beings of our experience, i. e., human beings, it is necessary for them to operate as material beings in order to attain the immaterial end that is the completion of their nature.

Nevertheless, it remains true that if there is any validity in the arguments for an entelechy or soul distinct from the spatial

¹⁰² *De Anima*, art. 15. Clause in parenthesis is mine.

arrangement of parts within the material organism, that life principle is the actuality in virtue of which the organism is able to act. In this sense, the entelechy is the efficient cause of the living operations, and is even the efficient cause of the developed organism itself, insofar as the mature body is the result of those vital activities. There is not, therefore, so much a question of disagreeing with Driesch, at least with regard to the positive results he has come to, as there is a problem of seeing how he could have arrived at those results without seeing that the further implications of the scientific approach itself point in the direction of the Aristotelian solution. The biological science sets out to study the nature of the organism as a given fact in the material world; Driesch's vitalism in the long run abdicates this task in favor of studying the activities of a being of another order entirely. Yet it seems to me that it is perhaps the fault of the science itself that this result comes about, for by dealing with the activities of the organism on a phenomenal level and only in their interconnections with other phenomena, by explaining those operations in terms of causes that are extrinsic and not intrinsic, the biological science, like all its experimental brothers, tends to breed a philosophic forgetfulness that there is more than one type of dependence, and that a causal interaction may be mutual rather than simply one-sided.

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THE STRUCTURE OF THE CONCEPT



SINCE Locke wrote his *Essay Concerning Human Understanding* philosophers have struggled with the problem of conceptual structure. Does the concept have a structure? And if it does what are the parts involved and how are they derived? What is the cause of their union in knowledge, and the plan according to which they combine? To resolve these questions is to determine the limits of human knowledge and the extent to which it attains the real.

Locke was led to pose the problem by a suggestion of Descartes: "The second (rule) was to divide each of the difficulties which I examined into as many small parts as possible and as would be required the better to resolve them."¹ A problem may be looked upon as a whole containing many parts. The first step toward its solution is the division of the whole into its parts. Once these elements of the problem are known the whole can be understood by reconstruction. The whole is intelligible in the architecture of the parts.

If division is taken in the logical sense, the resolution into genus and species, then this suggestion cannot be considered a new idea. Philosophers had, from time immemorial, known and used it. Classical logic had fully unfolded its nature and function. But Descartes did not have this logical division in mind. He intended to translate into the framework of philosophical thought the methodical division of mathematical analysis. The geometrician sometimes proves a property of a figure in virtue of the knowledge of its essence. This supposes the division of the figure into genus and species to form the definition. But the analytical geometrician (to whose method of procedure Descartes contributed the fundamental concept) begins by dividing the figure into quantitative parts and then proceeds to define the object as the sum of those parts. A curved line

¹ *Discourse On Method*, Part Two.

may be considered in its genus and species, or it may be divided up into indefinitely many small parts whose addition constitutes the original figure. It was this second method of proceeding which Descartes proposed for philosophy. He wished to resolve the object of philosophical thought not into genus and species but into "integral components."

The analogy between the method of geometrical analysis and the philosopher's way of division was vague in the thought of Descartes. He did not advance it substantially beyond the initial intuition nor purify it of its mathematical point of origin. But it was sufficiently suggestive to the mind of Locke to lead him to apply it to the problem of the concept.

* * *

It occurred to Locke that no thinker of the past had applied Cartesian analysis to human concepts. Philosophers had always divided the concept into genus and species as a prelude to definition. And from the definition of the object they had proceeded to deduce its properties. But they had never thought to dismember the concept in the image of the geometrician dividing the mathematical figure thereby the better to know it. The undivided figure is a puzzle to his mind. But when he has reduced it to its fundamental parts and rebuilt it out of them, it is totally intelligible to him in their relations. Just as the intricate works of a watch are a mystery to the layman until he has taken it apart and successfully reconstructed it, so it is with all intued wholes. So it may very well be with concepts. Locke, just as Descartes before him, was acutely aware of the vast confusion of contradictory philosophical opinions. It now seemed to him that their resolution might fundamentally hinge upon the application of this new analysis to conception.

If we approach this problem with Locke's conviction that conception has a structure we are naturally led to seek confirmation of our belief in the finding of likely parts. This is not a difficult task. For the qualities of external things presented to us by our senses seem clearly to act as the passive elements of combination and the relations of the mind seem to play the role

of the principle of union. This initial solution (an intuitive one) is both suggestive and fruitful. It suggests that all of our concepts, if properly dissected, reveal a union of sensible elements through mental relations. And the endeavor to analyze particular concepts—the fundamental notions of substance, cause and effect and the rest—meets with success confirming the primary intuition. In the *Essay Concerning Human Understanding* Locke endeavored to analyze these fundamental concepts of human thought and found in all of them the anticipated structure. Nowhere was there conflict with the initial intuition of conceptual composition. He concluded, then, that he had made a fundamental discovery. From that time forward it would be possible to dismantle the scaffolding of human science, as a watchmaker takes apart a clock, and consciously to reconstruct it. Philosophers would thereby have a tool of incalculable worth and a method of procedure which would stimulate creative speculation.

For I thought that the first step towards satisfying several inquiries the mind of man was very apt to run into was to take a survey of our own understanding, examine our powers, and see to what things they were adapted. Till that was done, I suspected we began at the wrong end. . . .²

Once this analysis has been achieved, there must be the subsequent process of reconstruction, rebuilding the complexity of rational thought out of the elements of sensible qualities.

Let us then suppose the mind to be, as we may say, white paper, void of all characters, without any ideas; how comes it to be furnished? Whence comes it by that vast store, which the busy and boundless fancy of man has painted on it with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, from experience; in that is all our knowledge founded, and from that it ultimately derives itself.³

By this process it seemed to Locke that human knowledge could be completely defined and its limits clearly determined.

² *Essay Concerning Human Understanding*, Book I, chap. I, Introduction.

³ *Ibid.*, Book II, chap. I.

But not everyone agreed. For there were philosophers who found the presuppositions of the method of Locke fallacious. Human knowledge could not be divided in the way that Locke proposed and consequently his pretensions were vain. Knowing is a vital operation which, like every living thing, if divided into parts, is destroyed. A line may be divided into segments and then reunited to restore the original whole. But if a plant be resolved into its chemical components no combination of those elements will bring back the living whole. So it is with thought. For in breaking it down into parts, as Locke pretended to do, it is destroyed. The living thought is more than the combination of the components which issue from the intentional analysis. The most that we can conclude of a plant after breaking it down into elements is that it is such an organism as to yield the discovered components upon application of the specific analytical method. We cannot pretend adequately to define the original in terms of the quantitative addition of the residual parts. The most we can conclude of human conception, after applying the analysis of Locke, is that it is such an object of thought as to yield the elements which he discovered. We cannot conclude that it is essentially no more than the additive integration of those elements. It is therefore impossible to reconstruct the original content in terms of the discovered parts or adequately to define the original in function of the parts.

Serious as this objection undoubtedly is, it is clear that it concerns not the general possibility of applying an analysis to thought but the interpretation of the results of a particular method. It objects to definition of conception in terms of elements discovered by segmentation. The objection would dissolve if it were possible to discover a method of analysis by which the unity of consciousness would yield the secret of its inner composition without the need of segmentation. In such an analysis the structure would reveal itself without destroying itself. The purposes of Locke would be achieved without the limitations of his method. Kant thought that he had found the necessary way in his "transcendental analysis."

In his novel approach to this problem Kant did not attempt

to separate the object into "integral parts" but rather to isolate the elements by a sort of indirect abstraction. He did not pretend that at the end of the division the parts would subsist as isolated objects of contemplation. On the contrary, he concluded that the parts could not truly exist in a state of separation. The elements of the combination would then lack objective character and the principles of the unity of consciousness would have no content. But nevertheless, he maintained that they could be detected by their effect upon the conscious whole. To see them through the visible effects is effectively to separate them in the mind without damaging the living unity of the concept. In the light of this discovery Kant tried to achieve the goal which Locke had proposed: to take a survey of understanding, examine the powers of the human mind and see to what things it was adapted, to determine to what extent it assimilates the real.

* * *

When one considers the energy expended on this problem by men of great intelligence, and the predominant position it has occupied through all of modern thought, it seems a hardy thing to reject it all as futile. Can it be that so many minds of such clearly outstanding intelligence could have labored in vain? Do we render this world of thought sufficient justice in simply pointing out its obvious defects? Is there not, perhaps, a more positive approach from the interior of the doctrine of the Schools itself by which a reason can be given for these speculations of the modern mind and the results which have followed from them? Many cogent reasons impel the mind to make a deeper search in this direction.

There is this, first of all, to consider: within the limited range of the data involved the theories of Locke and Kant have a certain verisimilitude. By that I mean that there is an appearance of compounding in conception such that sensation presents the matter for the relations of the intellect. However inadequate this might be for a final decision concerning the nature of conception its apparent justice within the boundaries of the

problem as Kant and Locke posed it is in need of explanation. How can these theories at all seem right and command the adherence of intellects of the first order if they are totally wrong? This is surely a question which we must answer from within the framework of Thomistic thought.

Nothing, of course, is more distasteful to coherent thought than a debilitating eclecticism which juxtaposes doctrines without any organic principle of union. We cannot seek to answer the problem of modern thought by so combining the more recent speculations with the doctrine of the Angel of the Schools. We cannot conceive of St. Thomas as simply approaching the subject from a different point of view so that his doctrine forms another aspect of the total truth. The doctrines are in contradiction. Philosophy does not grow, as does mathematics, by pushing back indefinitely the genus of the subject, taking an ever broader but not contradictory view, but rather it goes to the ultimate subject immediately. In the fundamentals, it cannot expand by generalization for divergency of opinion on fundamentals is irresolvable contradiction. Whatever reconciliation is to be made must be produced in the heart of a system. The doctrine of St. Thomas must from its own inner resources render reason for the speculations of the modern mind.

There is an interesting analogy from the methodology of mathematical physics which advances this thought. In the investigations of experimental science one sometimes induces an equation which, within the limits of the tests, closely approximates the quantitative facts of the object of the experiment. The equation is then tentatively posed as universally valid for the object even beyond the boundaries of the test. Subsequent investigations in the more extended field reveal that there the equation does not hold exactly. It is then so modified as to yield the same results within the original field and conform closely to the newly observed phenomena. For example, the equations of Newtonian dynamics were derived from observation of macroscopic bodies moving at a slow speed relative to the speed of light. It was found, at the advent of atomic and subatomic physics in more recent times, that the simple appli-

cation of these rules without any modification would not accurately predict the movements of atomic particles moving near the speed of light. The equations were then so modified as to break down into the equations of Newton, under the conditions of his observations, but accurately to predict the movements of atomic particles under the conditions of great speed and energy. The modified equations constitute the theory of relativity of Einstein.

By analogy, then, we might say that the theories of Locke and Kant closely approximate the appearances within the range of observations from which they arise. But, beyond that field, they are inaccurate and must be replaced by a theory which corrects their defects. The full and correct theory of the concept, then, would be such a theory as to yield the results of Locke and Kant within the restricted field of their data but at the same time yield the results of Thomistic thought in the completely expanded field. It would offer a cogent explanation of why the modern speculations, though fundamentally defective, seem at all to meet the demands of truth. Of course, the analogy limps and it is not possible to make a simple transfer of mathematico-physical notions into the realm of metaphysical speculations. But it is suggestive even in its lack of precision. Let us follow up the idea by tentatively developing a general theory of the structure of the concept.

* * *

The concept, according to the postulates of our procedure, must be such as to verify the tenets of Thomistic thought completely. It must conform to a moderate realism and must not be a product of the thinking mind but of the world outside. Moreover it must be such as submitted to the methods of analysis of Locke and Kant to reveal a structure, not to be a simple intentional content. Let us proceed, as in mathematical physics, from the restricted case outward.

The theory of Locke states that conception is a compound of sensation and relations added by the thinking mind. The world, as presented to us by the senses, is a complex amalgam

of multiple qualities. The mind, in bringing this vastness under the order of reason, removes the sensible qualities from the chaos of sense presentation by relating them in the unity of one consciousness so that they form an intelligible unity in reason. Such a process of binding together the manifold of sensation in the unity of rational consciousness is radically subjective. The relating is not something of the world, but rather of the thinker. The combination of the external qualities and the relating activity of the thinker results in the ordered cosmos which we call nature.

Now it is clear that there is an appearance of verisimilitude in this position. It is the intellect which seizes upon the relations of things, not the senses. Reason is distinguished from sensation by the fact that it apprehends relations. Relations, then, seem to be the peculiar contribution of intellection to knowledge. And the totality of knowledge seems to be an integration of sensation and the relations so contributed by the mind.

Moreover, proceeding according to the more sophisticated theory of Kant, it would seem that knowledge properly consists in the unification of the manifold of sense qualities by the categories of the intellectual order. Sensation, organized by the sensible forms of space and time, acts as a matter for the application of the *a priori* forms of the understanding. A remarkably detailed correlation can be found between the sensible matter, the possibilities of combination on the intellectual level, and the factual distinctions of human conceptions. All of these appearances confirm the initial intuition that Locke proposed. But there is also a serious defect. Both theories, which are substantially the same, proceeding as they do from a common inspiration and tending to a common goal, reject the objectivity of the intellectual relating act. This is a consistent inference in the writings of Locke and a clearly stated conviction in the writings of Kant. The modified theory must begin by correcting this point. Let us say, then, that the relation-principle is not, as they suppose, something from the mind but something derived from the external world. The relations exist

in reality and are received into the mind from the world just as are the sense qualities. This correction moves the theory closer to an acceptable Thomist position. But we must be careful to see that it still maintains the analytical results of the investigations of Locke and Kant.

* * *

It is clear that there is one interpretation of the situation which will not meet this requirement. If we conceive the mind to apprehend terms and relations *a pari* (that is to say, that some of the objects perceived are non-relational and some are relational and that there is no priority or order in this perception), then the analytical methods of Locke and Kant will yield the anticipated results in their application to the relational contents but not in their application to the non-relational contents. In the latter case it will not be possible to find a structure. This would be contrary to the position of Locke and Kant according to which all of the basic concepts of thought reveal structure.

But there is another interpretation which avoids this difficulty. Let us suppose that the mind perceives first of all relations and through them related things. This is not to pretend to a grasp of the relational without the related terms, but merely to affirm that the apprehension of relation is prior in nature, that the term is apprehended only *qua* term, *qua* related. Then, because of this priority, relation and the relational structure will run through all of thought and every concept of the mind will be found to have an analyzable structure. If we posit this interpretation, then we meet the demands of moderate realism since the relations are supposed to be basically real. And we meet the analytical requirements of the investigations of Locke and Kant. Because of the basically relational constitution of human thought it will always reveal the presence of parts to the searching mind.

Moreover, this corrected theory seems to offer an intuitive explanation of two serious difficulties for modern thinkers: the universality of conceptions and the reality of the categories of

Aristotelian logic. With respect to the universality of concepts: there is something peculiar about the relational which separates it from other modes of being, and ties it to the property of universality. Of all modes of existence it seems most strangely to escape the limitation of singularity. It is not an absolute modification of the receiving subject but projects it outside of itself to what is other. In this intuitive sense it seems to escape from the singularity of both of the terms it binds and recede into the non-individualized or universal, and thus, taking relation as the heart of conception, to render an explanation for the universality of human conception.

The same position seems intuitively to meet the demand of justifying the system of the categories. For it is only a basically relational concept that can be organized and arranged in classes. The relations form the cement and the links in the network of conception. This would explain why nature takes on a static quality in human conception as opposed to its dynamic quality in the external reality. It is not because conception falsifies nature or fails to attain the external reality but because the world, as it enters the human mind, takes on the properties and characteristics of that part of reality which is first apprehension.

It would seem, therefore, that the position of relation as fundamental in human thought, in the way we have just explained, meets the appearances as postulated for an expanded theory of the concept. So constructed it would meet the requirements of the theories of Locke and Kant, rendering a reason for the results of their analyses. It would also satisfy the requirements of moderate realism essential to Thomistic doctrine. Of course, this mode of argumentation is merely a first approximation (as the mathematician would say) but it suggests that the intuitive hypothesis may rest on solidly scientific grounds. To establish this last possibility we are in need of a convincing argument beyond the intuitional level. This is had by a consideration of the essence of human conception as ordered to judgment.

The judgment is basically the attribution of a predicate to

a subject. When we say: A is B, we attribute the predicate conception B to the subject conception A. Now the fact of this attribution, if investigated as to its nature and possibility, indicates that both A and B (the symbolic representation of any concept whatsoever) have structure. For the judgment affirms that A is B, that is to say, that A and B are identical. But it also affirms, by the fact that there is a judgment at all, that A and B are different. If A and B are not identical then the judgment is impossible. It does not simply *relate* two distinct entities but poses them as identical, so that any relation besides that of identity excludes the judgment. If A and B are not different, on the other hand, then the judgment is likewise impossible or at least futile by reason of tautology. All that can be known of an object, in such a case, is sufficiently achieved in one simple conception of it. It therefore follows, from the nature of the judgment, that A and B are both identical and different. How is such a situation possible?

Clearly A and B can be both identical and different only if they possess composition and a structure. They must necessarily be composed of fundamental parts. In virtue of one part possessed in common, they are identical. In virtue of another part different in both, they are distinct one from the other. The judgment affirms the identity of A and B in virtue of the intuited common part, and poses their distinction in virtue of the intuited divergent parts.

That this is necessarily true is brought out by considering another possible position. A and B are simple contents. If this be the case, and they are identified in any way, as is essential to the judgment, then they are totally identified and the judgment is pure tautology. It becomes a useless act of the mind. In this case, all human knowledge, as the divine or the angelic, would reduce to the simplicity of fundamentally one conception.

Moreover, if it be true that A and B are "simple" contents, lacking structure, and that they are different, then it follows that they totally differ one from the other and can in no way be identified. One might perhaps say that A and B are simple totally different mental contents, whose identification in reality

is affirmed in the judgment by reason of a super-conceptual apprehension of such identification. Thus the identity of A and B would not be perceived in the contents of these concepts, or in any act of conception, but would be a peculiarity of the act of judging itself. The act of judgment would have the property of reaching out beyond the simplicity of A and B to the reality in which they are found united. Thus there would be no need to postulate a structure in either concept in order to explain the judgment. But, this position implicitly gives back to the concepts what it intends to remove from them. For it affirms that the concepts as such are not sufficient for posing an act of judgment but that the judgment must reach beyond them to apprehend their convergence upon one identical reality. Only when this identical element is added to them do they enter into judgment. But once it is added then they are no longer simple but rather constructed contents. The elaborate circumvention of the argument is futile. We are forced again to the conclusion that the judgment postulates the existence of structure in the subject and predicate conceptions.

One might say: A and B are essentially simple contents, but accidentally structured. This structure, which is added over and above the heart of the conceptions, is the basis of the judgment. But this again would be entirely unacceptable. Human knowledge, in such a position, would be essentially intuitive, conceptual and simple. In this case, it would be difficult to explain what is added over and above the essential knowledge by the accidental. Moreover, as is theoretically necessary for intuitive intellectual knowledge, the intuition is basically one. It would be impossible to explain the multiplicity of conception around one identical object in such a supposition. Clearly, then, all of these positions, which deny structure to human concepts, lead to disagreement with the observed facts of human thought. It is necessary, therefore, to hold that human concepts are fundamentally structured.

* * *

The medium involved in the foregoing argument is essentially logical. The same conclusion can be reached by a psychological argument. It is a basic tenet of philosophy that all knowledge arises in the senses. This knowledge, basic and rudimentary, is completed by the knowledge of the intellect which is coordinated with it. We thus have two orders of knowledge, specifically distinct, but so focused on one object as to form one unified consciousness. Is this situation possible in the supposition of the simplicity of the concept? Clearly it is not, for in order that there be objective unity in the combined acts of knowledge there must be some form of objective contact which is not possible in the case of two intuitive acts of knowing specifically distinct.

Let us suppose that the act of intellection is intuitive and simple, as well as the act of the sensation, and endeavor to explain the fact of their coordination. The unity of consciousness might be explained by some common formality in the objective content of both orders of knowing by means of which the two would fuse. But this is not possible for the specifically distinct orders of sensation and intellection. Such a position would reduce the intellect to a sort of inner sense reflecting upon the external senses and forming one sensible "consciousness" with them in virtue of the common formal object of sensibility.

It is possible that the intellect be intuitive, as are the senses, and that it have, nevertheless, the same object as the latter. But in this case it could not form one objective unity with them. The situation would be analogous to that which obtains between the divine and the human knowledge of Christ. They may focus upon the same object, but they do not form *one* consciousness. The principle of integration is outside the realm of the intentional in the real order of the supposit. So it would be in the case of intuitive human knowledge on the conceptual level combining with sensible knowledge. The principle of union would lie outside of the intentional in the real—in the supposit. There would be two flows of "consciousness." It would be impossible, then, to explain the teleology of body and soul, the purpose of the union of an intellectual nature to a body. For

in such a situation the knowledge of the intellect would in no way depend upon the knowledge of the senses.

To explain, therefore, the coordination and dependence of these two orders of knowledge it is necessary to pose structure in the concept. In order that the two may form the unity of one objective consciousness it is necessary that one be simple and the other composed, that one be intuitional and the other relational. The intuitive knowledge presents the terms and the relational knowledge combines them in one concept. It is here that we find the point of contact and dependence. Sensation presents the terms and the intellect unites them in a relational concept. It is for this reason that the intellect, though specifically distinct from the senses, depends upon them and forms one unified consciousness with them. It is for this reason, too, that the intellect, even though in possession of the species by means of which it knows, nevertheless can never pose an objective content without "conversion to the phantasm." Without the terminal content supplied by the senses, there is no object for the relational apprehension of the intellect. So, from a psychological point of view, we are led back to the same conclusion. The reason for the appearance of validity in the speculations of the moderns on conception is to be found in the fact that concepts have a structure. Any discussion of the properties of conception leads back ultimately to this basic truth. Perhaps the most lasting contribution of modern thought to the perennial philosophy will turn out to be just this: there is an architecture in human conception whose investigation is fundamental to the understanding of the great edifices erected by the human mind.

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ST. THOMAS ON THE NATURE OF SACRAMENTAL GRACE

(Concluded)

II

SACRAMENTAL GRACE IN RELATION TO ITS FINAL AND MATERIAL CAUSES

ANY treatment of sacramental grace which would leave out of consideration its final causality or the *causa causarum* cannot give us a conclusive and definitive idea of its nature. Indeed it is precisely from this that we must arrive at our definition of sacramental grace. For by knowing the effects of the sacraments, or of the sacramental graces, we can deduce with an equal amount of certitude the nature of their cause.¹

In the fifth article of question sixty-two, and in the first article of the sixty-fifth question St. Thomas discusses the overall effects of the sacraments, and the *res sacramenti* of each of the individual sacraments respectively. It is, then, from these two sources that we shall try to arrive at not only the same notion of sacramental grace that we deducted from the efficient causality of the sacramental rite, but also at some understanding of the special effect, or the *quoddam divinum auxilium* which is given through it.

In treating the question of whether the sacraments of the New Law receive their power from the Passion of Christ St. Thomas, after re-affirming the conclusion of the article that we have just seen, distinguishes between an instrument which is joined or linked to its principal cause, and an instrument which is separated from it. The Sacred Humanity of Our Lord is

¹ Garrigou-Lagrange, O.P., *De Unione Sacerdotis cum Christo Sacerdote et Victima* (Marietti: Rome, 1948), p. 18.

considered to be the instrumental cause joined to the principal cause, Who is, of course, God, while the sacrament is the instrumental cause separated from the principal cause. Since the separated instrumental cause is moved by the non-separated instrumental cause, St. Thomas concludes that the "health-bringing power which the sacraments give is derived from the divinity of Christ through the sacraments." And then he concludes:

Sacramental grace, however, seems to be ordained especially to two things: that is to say, to remove the defects of past sins insofar as they are past as far as their commission goes, but present as far as their guilt goes (*remanent reatu*). Secondly, it is ordained to perfect the soul in those things which pertain to the cult of God, in accordance with the religion of the Christian life. It is clear from what we have said above, that Christ freed us from our sins especially through His Passion, which was not only an efficient and meritorious cause, but also a satisfactory cause (of this liberation). Likewise through His Passion He also initiated the rite of the Christian religion, offering Himself as an oblation and as a Victim to God. . . . Whence it is evident that the sacraments of the Church in a special manner have their power from the Passion of Christ; this power is joined to us in a certain manner through the reception of the sacraments.²

The finality of the grace of the sacraments is presented to us quite clearly. The *res sacramenti* is given to us with an eye to bringing about two things. Both of them have been touched upon in the article that we have seen, but they are brought out here much more clearly. Nevertheless a complete understanding of them will necessarily involve having recourse to other questions either in the tract on the sacraments or elsewhere.

§ 1

The Remedial Aspect of Sacramental Grace

In the *Sentences* the sacramental theology of St. Thomas seemed to be concentrated on this aspect of sacramental grace; not that the positive aspect is not there, but the emphasis on

² *Summa Theol.*, III, q. 62, a. 5, c.

the remedial aspect of the sacraments, and the grace it brings, is much more pronounced. The Christian life was for him essentially a redeemed life, or redemptive, and for this reason we find the emphasis on the *sanans*, or the healing effect of sacramental grace. He still retains this notion, and very much so, in the *Summa*, but he also brings out much more clearly the elevating nature of sacramental grace, which we shall see later on.

The remedial aspect of the grace of the sacraments, is contained in the expression "*ad tollendos defectus praeteritorum peccatorum, inquantum transeunt actu et remanent reatu*," and also in the insistence of St. Thomas on the fact that the Passion of Christ not only effectively and meritoriously liberated us from sin, but also *satisfactorily*. These are two ideas which he plays against one another, so to speak, in the present article.

In the *Prima Secundae*, in listing the effects of original sin, we find that they are three: the corruption of the "*bonum naturae*," the "*macula*" of the soul, or the loss of its beauty or splendor, and thirdly, the obligation to undergo punishment, or the "*reatus poenae*."³

In the present article we have seen that St. Thomas speaks of sin as being past as far as its commission goes, but as remaining as far as its "*reatus*" or guilt goes. It involves the payment of a debt that we have contracted by having offended God, or the satisfying of the justice of God by some difficult work spontaneously taken up for a fault, or which is borne patiently as coming from God.⁴ In the present article St. Thomas opposes to this term the notion of satisfaction, thereby explicitly relating this remedial notion to the role of satisfaction contained in the Passion of Christ. We might say, then, that the remedial role of sacramental grace corresponds to the role of satisfaction which the Passion of Our Lord played in the divine plan of redemption.⁵

³ *Ibid.*, I-II, q. 85, Introduction.

⁴ *Ibid.*, q. 87, a. 6, c.

⁵ III, q. 62, a. 5, c: cf. Charles Crowley, O. P., "The Role of Sacramental Grace in the Christian Life," *The Thomist* (1941) II, 520.

The Angelic Doctor tells us that it was necessary for the liberation of the human race from sin that someone make satisfaction to the one offended, and that this someone be both man, and therefore capable of satisfaction, and God, or as he says, something (*aliquid*) above man, so that his merit might be sufficient to satisfy for the sin of the entire human race. In order to bring about this adequate satisfaction for sin, God decreed the Passion and death of the Son of God Incarnate.⁶ But the Passion and death of Christ was not a cause of our salvation in any way whatsoever; His Passion was the meritorious, and efficient, and satisfactory cause of our salvation. For "anyone constituted in grace, who suffers for the sake of justice, by this very fact, merits for himself salvation."⁷ Christ had received grace not merely as an individual, but as the Head of the Church. Consequently Christ by His sufferings merited salvation for all His members.

It is true that a meritorious act does not necessarily include satisfaction. That is why St. Thomas separates the two thoughts when discussing the manner in which the Passion of Christ brought about the effects to which it was ordained.⁸ Satisfaction, on the other hand, supposes an offense committed, an inequality not only opposed to justice, but also to friendship. And so, in order that an offense might be removed, through satisfaction, not only is it necessary that the equality of justice be restored through the recompense of punishment equivalent to the offense, but it is also necessary that the equality of friendship be restored.⁹ Therefore, a work which is performed either for merit or for satisfaction must be at least commanded by charity.

It remained, however, for the satisfactory merits of the Passion and death of Christ to be applied to us in some way; it remained for us to share in them, so that His satisfaction might, in some way, be accounted as our satisfaction, restoring us to

⁶ *IV Cont. Gent.*, c. 54; *Summa Theol.*, III, q. 1, a. 2, ad 2.

⁷ *Summa Theol.*, III, q. 48, a. 1, c.

⁸ *Ibid.*, and a. 2.

⁹ *IV Sent.*, d. 15, q. 1, a. 3, qcl. 1, ad 2.

terms of justice, friendship with God. We can see how this was to be done, by citing a few pertinent texts.

The Passion of Christ although corporal, still has a spiritual power, given the fact that the divinity is united to the humanity. And so it works its effect by means of a spiritual contact, namely, through faith and the sacraments of the faith.¹⁰

. . . because the Passion of Christ occurred as a kind of universal cause of the remission of sins, it must be applied to individuals for the remission of their sins. This is done through Baptism and Penance, and the other sacraments which have their power from the Passion of Christ.¹¹

The sacraments of the Church are the ordinary means by which men are freed from sin and from the power of the devil. Not only that, but this effect, namely, freedom from the obligation of undergoing punishment, is applied to us through faith and charity, and through the sacraments of the faith.¹²

Faith informed by charity is a sufficient means by which we might realize in ourselves the fruit of the Passion of Christ, and that fruit about which he is speaking is "*liberatio a reatu poenae*," or the freedom from guilt. That is to say that the satisfaction of Christ which is the means by which we are freed, is accounted as our satisfaction, too, insofar as we become His members uniting ourselves to Him in charity.¹³

But this satisfaction is not only applied to us through faith and charity; it is also applied to us through the sacraments of the faith.¹⁴ It is in the second response cited that St. Thomas gives us an insight into the meaning of the term "*reatus poenae*." There we see that it extends to death, too, which is, as he says, a certain punishment inflicted on us by the justice of God, because of original sin, voluntary in all of us and therefore meriting punishment. Christ's Passion was satisfactory to such an extent that it assured all those who participate in it, or to

¹⁰ *Summa Theol.*, III, q. 48, a. 6, ad 2.

¹¹ *Ibid.*, III, q. 49, a. 1, ad 2.

¹² *Ibid.*, a. 3, ad 1.

¹³ *Ibid.*, q. 49, a. 1, c; q. 48, a. 2, ad 2.

¹⁴ *Ibid.*, ad 3; cf. also I-II, q. 85, a. 5, ad 2

whom it is attributed, of immortality, not the immortality of Adam in the state of innocence, but an immortality far surpassing his; it was to be the immortality of glory to be given us in the resurrection. We are freed from the obligation of undergoing perpetual death, but we are not freed from a temporal death nor from the penalties of the present life. The reason is because we do not enjoy that satisfaction unless we become members of Christ, configured to Him, which means that we must bear the penalties of the present life and death. But these penalties are not inflicted on us as they were before our union with Christ because of the fact that we are *personally* guilty of punishment. We are subject to death and the other penalties because of the state of our nature.¹⁵ For by the fact of our incorporation in Christ, we are freed from the personal obligation of undergoing any punishment whatsoever, when it is a question of the sacrament of Baptism.

The sacraments of the Church, then, like the Passion of Our Lord in whose power they bring about their marvelous effects, confer not only sanctification but also satisfaction for sin, thereby making us pleasing to God and applying to us the satisfying power of the Passion of Christ. They are, therefore, *sanans et elevans* insofar as the effect they produce is such. This brings us to the conclusion that the term *reatus poenae*, as used in the present article under discussion, refers also to the guilt which we have with respect to original sin and to those things which flow from it, death and the penalties of the present life, or the loss of the perfect subordination of the inferior powers to the reason, and of the body to the soul. We are guilty of all these punishments¹⁶ and of those which we incur through the commission of actual or personal sins. All these punishments are taken away in virtue of the satisfactory merits of the Passion of Christ, which are applied to us through faith and charity and through the sacraments of faith.

¹⁵ *Ibid.*, III, q. 69, a. 7, ad 3.

¹⁶ *Ibid.*, I-II, q. 85, a. 5, c.

§ 2

How the Sacraments Apply this Effect

The very nature of justification brings with it union with Christ; it brings with it an application of the fruits of the Passion of Our Lord liberating us from the eternal punishment due to sin, whether original or mortal, or both, as well as from at least some of the temporal punishments due to sin, whether original or actual.

All justification is, in a sense, sacramental, at least according to the ordinary plan of Divine Wisdom. For the transition from the state of original sin to that of justification is had on condition that Baptism be received, whether of water, or of blood, or of desire, at least *in proposito* and implicitly; the transition from the state of mortal sin to that of grace in those who fall after having received Baptism can be had only on condition of the reception of the sacrament of Penance, and again, we must add, ordinarily, at least *in proposito*, and implicitly.¹⁷

Freedom, therefore, from the eternal punishment due to sin is also, in a sense, sacramental, and is had in virtue of the Passion of Our Lord. We ourselves cannot satisfy in any way whatsoever for the eternal punishment due to sin; we must rather depend on the application of the Passion of Christ, or the satisfactory merits of the Passion, which are ordinarily had through the reception of the sacraments of Baptism or of Penance in one of the ways just mentioned.

Regarding the temporal punishment due to sin St. Thomas tells us that it is twofold: first, that which affects all human nature as a result of original sin. Under this he lists the necessity of dying, the sufferings of the present life, the disobedience of the flesh to the spirit, and "other things of the sort." These are not taken away immediately by the reception of the sacrament of the Passion, he tells us, but only at the end of the world. The second temporal punishment is that which is

¹⁷ Council of Trent, sess. VI, c. 14 (*Denz.* n. 807); cf. also *Summa Theol.*, III, q. 68, aa. 1-2; *Quodl.* IV, q. 7, a. 1, c.

a result of our actual or personal sins. We are freed from this latter in one of two ways:

1. through the sacrament of the Passion or Baptism, by which we are buried together with Christ unto death, "in which death, the divine power, which knows no inefficaciousness, works our salvation."

2. through real conformity to the Passion, "when we suffer with Christ suffering," that is, in the sacrament of Penance.¹⁸

The sacraments, when received fruitfully, effect satisfaction, a satisfaction for sin in accordance with the symbolism of the sacrament in question. We receive the fruits of the Passion of Christ with respect to the punishment due to sin in a measure which is determined by two things: the sacramental symbolism, and the dispositions of the one receiving the sacrament. Let us take a quick glance at the individual sacraments.

The satisfaction of Christ which is applied to us in the sacrament of Baptism is complete, freeing us from the obligation of undergoing any punishment whatsoever, whether eternal or temporal, although, as we have seen, certain penalties remain because of the state of our nature. The sacrament produces what it symbolizes, a perfect rebirth in Christ, so that the Passion of Our Lord is communicated to the one baptized as though he himself had suffered and died and had, therefore, sufficiently satisfied for all his sins.¹⁹ The power of the sacrament of Baptism is for the individual what the Passion of Christ is for the human race, sufficient to remove all punishment due to sin. It even has the power to take away the punishments of the present life, but this power of the sacrament is withheld, according to Divine Wisdom, until the resurrection.²⁰

Like Baptism the sacrament of Penance also applies to us the satisfactory power of Christ's Passion and in accordance with its symbolism, that is, on condition of our becoming conformed to Christ suffering, that we ourselves have the firm

¹⁸ *III Sent.*, d. 19, a. 3, qcl. 2.

¹⁹ *Summa Theol.*, III, q. 69, a. 2, c.

²⁰ *Ibid.*, a. 3, c.

resolution of doing some penal work, that which is imposed by the priest, in satisfaction for the offenses committed against God. St. Thomas contrasts the sacraments of Baptism and Penance in their application of the satisfactory power of the Passion thus:

The Passion of Christ is sufficient of itself to remove all the obligation of punishment, not only eternal, but also temporal; it is precisely in accordance with the manner in which one participates in the power of the Passion of Christ that he receives absolution from having to undergo this punishment. In Baptism we participate entirely in the power of the Passion of Christ, as through water and the Holy Spirit we die with Christ to sin and in Him are reborn to a new life. And so in Baptism we gain the remission of all punishment. In the sacrament of Penance, however, we acquire the power of Our Lord's Passion according to the manner of our own acts which constitute the matter of Penance, as water does of Baptism. And so the entire debt due to sin is not cancelled following upon the first act of Penance, in which sin is remitted, but only on completion of the other acts of the sacrament.²¹

The first act of the penitent is sufficient to remit some of the temporal punishment due to sin, even before the *actual* completion of the other acts. Likewise the absolution of the priest has a satisfactory power to it other than that of contrition and the infusion of grace, and apart from that obtained through the performance of satisfactory acts by the penitent.²² But it does not remit all the temporal punishment. For the infusion of grace here, while also being *sanans et elevans*, is such in accordance with the sacramental symbolism. The latter consists in our conformity with Christ suffering, and therefore, we must perform some satisfactory act ourselves.²³ But, we should note, we do not have to satisfy as much as our sin requires, because the Passion of Christ the Head flows into His members; from the power of His Passion then, the quantity (of satisfaction on our part) is diminished, in proportion as we are united to Him

²¹ *Ibid.*, q. 86, a. 4, ad 3.

²² *IV Sent.*, d. 18, q. 1, a. 3, qcl. 2.

²³ *Summa Theol.*, III, q. 49, a. 3, ad 2.

in charity.²⁴ Even this diminished satisfaction that we perform takes on a marvelous aspect:

. . . as the offense had a certain infinitude about it because of the infiniteness of the divine majesty, so too, the satisfaction receives a kind of infiniteness because of the infinitude of the divine mercy, insofar as the satisfaction comes from one in the state of grace, through which is rendered acceptable whatever man can render.²⁵

Briefly we can say that the sacrament of Penance applies the satisfaction of Christ's Passion to us by removing our guilt with regard to eternal punishment absolutely, and with regard to temporal punishment relatively, that is in accordance with our conversion back to God, or as St. Thomas says "*secundum motum fervoris in Deum*."²⁶ While it is true that the notion of satisfaction is more difficult to find in the other sacraments, nevertheless it can be found.

In explaining just how venial sins are remitted, St. Thomas tells us that every new infusion of grace remits at least some of the venial sins present, and so he concludes that all the sacraments of the New Law can remit venial sin,²⁷ and furthermore, their guilt, but this latter not always entirely; this is remitted, as we have seen, according to the fervor of our flight towards God,²⁸ which is stirred up or aroused by the infusion of grace in the reception of the sacrament.

Moreover, as we have seen above, the notion of *reatus poenae* applies to all the defects brought about by sin, original and actual, and therefore includes death, suffering, and the proneness or the inclination of our nature to evil, and the difficulty we find in the doing of good. Every infusion of grace gives us just that much more domination over these tendencies. Therefore we can say that these wounds of our nature are removed also by the satisfaction of Christ applied to us in

²⁴ *III Sent.*, d. 19, a. 3, qcl. 2; *Summa Theol.*, III, q. 49, a. 3, ad 2.

²⁵ *IV Sent.*, d. 15, q. 1, a. 2, ad 1.

²⁶ *Summa Theol.*, III, q. 87, a. 3, ad 3.

²⁷ *Ibid.*, c.

²⁸ *Ibid.*, ad 3.

virtue of the sacraments which in turn derive their power from the Passion of Our Lord.²⁹

Coming to the individual sacraments we see that the grace of Confirmation serves as a remedy for the double infirmity which is a penal consequence of sin, namely, fear and human respect, "*ut neque propter timorem neque erubescientiam nomen Christi confiteri praetermittat.*"³⁰ Moreover, not only the effect of the sacrament of Baptism is perfected in the reception of this sacrament, but also the effect of the sacrament of Penance, "*quia per gratiam collatam in hoc sacramento consequetur poenitens plenior remissionem peccati.*"³¹

While it is true that the sacrament of the Eucharist is given directly to nourish the soul, uniting it more closely to Christ and to His members, still, indirectly, it does have the effect of satisfaction, even as sacrament:

. . . but because this unity comes about through charity, from whose fervor or intensity we gain the remission not only of sin, but also of the punishment due to it as a result, by a kind of concomitance with the principal effect, we receive a remission of the punishment due to sin, not all, of course, but in proportion to our devotion and fervor.³²

Extreme Unction, the sacrament preparing us for immediate entrance into the beatific vision, is directed toward the removal of the "*reliquiae peccati.*" This latter consists in an ineptitude or weakness which is left in us by original sin, or actual sin, and which prevents our having full vigor for the acts of grace or of glory.³³

The grace of Holy Orders acts as a remedy particularly against an egoistic attitude centered on the interests of this world, which attitude is the result of original and actual sin. It brings, therefore, the "grace of forgetfulness of self."³⁴ While

²⁹ Cf. C. Crowley, O. P., *art. cit.*, pp. 531-532.

³⁰ *Summa Theol.*, III, q. 72, a. 9, c.

³¹ *Ibid.*, a. 7, ad 2.

³² *Ibid.*, q. 79, a. 5, c.; a. 4, c.; a. 6, c., and ad 2.

³³ *Suppl.*, q. 30, a. 1, c.

³⁴ H. Bouëssé, O. P., *Le Sauveur du Monde*, 4. *L'Économie Sacramentaire*, p. 254.

it is true that the sacrament is given to prevent the dissolution of the multitude, and is remedial principally for the entire Church rather than for the person, nevertheless, we cannot exclude its being a remedy for the latter. He receives the plentitude of grace in order to make him worthy of his priestly office, and to render him capable of performing his priestly functions holily. Because He is called upon to "embrace the precepts of the Christian teaching in their fullest possible integrity . . . (since) he must with daily more eager steps press on to the attainment of the perfection required by his exalted priestly dignity, . . . (since he must imitate Christ) as a Victim for the salvation of His brethren,"⁸⁵ he must receive, in virtue of Holy Orders, the grace necessary to dominate over those tendencies which would lead him away from the fulfillment of his priestly calling.

Finally, the sacrament of Marriage serves as a remedy against the ill-regulated attractions of concupiscence and brings with it the help to accomplish generously the obligations of this state by virtuous actions, often very difficult to perform.

* * *

In conclusion to this consideration of the remedial aspect of sacramental grace we must say that the grace of the sacraments is the "grace of the Passion effecting our salvation by way of satisfaction"⁸⁶ by removing in accordance with the symbolism of the sacrament "the guilt of sin, and its punishments and defects,"⁸⁷ or whatever can be included under the term *reatus poenae*.

Sacramental grace and sanctifying grace as given in the present economy, and therefore, not merely *elevans*, but also *sanans*, do not differ from one another essentially, but only modally, or *modaliter*; that is to say, the effects of sanctifying grace under the present economy are given for a Christian life and in accordance with the symbolism of the various sacra-

⁸⁵ Pius XII, *Menti Nostrae*, AAS, XXXXII (1950), 661.

⁸⁶ C. Crowley, O.P., *art. cit.*, p. 525.

⁸⁷ *Ibid.*, p. 531.

mental actions, or rites. The special remedial help which this sacramental grace gives, and which St. Thomas in the earlier works of the *Sentences* and the *De Veritate* called sacramental grace, is ordained to remove the defects resulting in the soul from sin, original or actual, by applying the satisfactory power of the Passion of Christ. Thus God's wrath is appeased and our nature healed imperfectly in the present life, but with a guarantee of a more perfect reparation, more perfect than we ever could have imagined, when we will participate in the glorious resurrection of Our Lord. So we see verified the words of St. Thomas that "the power of Christ works in the sacraments by way of healing and by way of a kind of expiation (*per modum sanationis et expiationis cuiusdam*)."⁸⁸

The teaching that we find here is exactly the same as that which we saw in the earlier works, as regards the remedial aspect which the sacraments bring to the soul, with this simplification, however, that the term "sacramental grace" is used to denote not merely the special effect, but sanctifying grace possessing that effect.

Under the unification and simplification of sacramental causality this special divine help pertains to what St. Thomas calls the principal effect of the sacramental rite, or grace. The Angelic Doctor admits of only two effects of the sacraments, grace and the sacramental character. Therefore, in the sacraments which do not imprint a character, the *res et sacramentum* must be found and as connected with the effect they do produce grace. But we shall see more of this in the next section.

§ 3

Sacramental Grace and Cult

Very frequently we forget about the other aspect of the sacraments, an aspect which is just as essential to them as the concept of sacrifice is to the Passion of Our Lord. I am speaking about the aspect of cult or worship which the sacraments con-

⁸⁸ *Summa Theol.*, III, q. 52, a. 8, ad 2.

tain. Even St. Thomas in the texts we have seen from the *Sentences* and the *De Veritate* does not mention this aspect of sacramental grace explicitly. In this he was merely following the current of his time, which regarded the sacraments and the grace which went with them principally as remedies for fallen man. They emphasized the fact that the Sacrifice of the Cross was an act of satisfaction and expiation, that the sacraments were something like the act of the good Samaritan binding up the wounds of a traveller who had been attacked while on his journey.

All this is true; the sacraments, like the Sacrifice of the Cross, do just this. But they do something more than this, as Dom Vonier notes in his work on the Eucharist, and I believe his thought to be a perfect representation of the mind of St. Thomas as expressed in the *Summa*. In his *Key to the Doctrine of the Eucharist* he says:

But the same adage (*sacramenta sunt propter homines*) would defeat its own ends, or certainly would defeat the end of the sacramental system, if it were meant to express an exclusively utilitarian view of the sacrament. . . . No supernatural grace could ever be so one-sided. A grace represents the interests of God as well as the interests of man; it implies the glory of God as well as the salvation of man. We may propound it as the general maxim in the doctrine of grace that man's profit and God's glory are the twofold aspects of one and the same thing, grace. . . . Sacraments consequently represent the Cross in the double aspect of atonement for sin and of worship of God.³⁹

In the *Summa* St. Thomas brings out much more clearly this side of our sacramental life, and consequently of sacramental grace. Not that he excludes in any way the notion of the sacraments and the grace they bring, as remedies against sin, but nevertheless his entire treatment of the sacraments follows more closely and more perfectly and harmoniously from the complete understanding of the Incarnation and Passion of Our Lord, the exposition of which just precedes his teaching on the

³⁹ *Op. cit.* (Burns, Oates, London: 1931), pp. 45-46.

sacraments and which gives them all the power and efficacy they possess.⁴⁰

St. Thomas has already mentioned this tie-up of cult with sanctification when speaking of the virtue of religion. The *sacramenta*, or the external rites of the sacraments, are acts of the virtue of religion. They are those external acts of the virtue by which "that which is God's is assumed by man."⁴¹ This is as far as he goes in regard to the sacraments in this particular place, most probably because the sacraments can in no way be understood except that they be related to the Passion of Christ, from which they receive their entire meaning and force. Not having treated of that, he puts off his discussion of the sacraments until he shows that the Passion of Christ is both an act of cult and an act of satisfaction.⁴²

We know that all grace after the Fall has a double role, that of elevating our nature or making us participators of the divine nature, and that of healing it of the wounds caused by sin. *Of itself*, habitual or sanctifying grace does not have this second aspect. After original sin, however, all sanctification had to be had through faith in Christ, and ordinarily, through a faith professed externally as well as internally, by certain sensible signs, determined or not, by the Creator.⁴³ Insofar as they were and are certain protestations of our faith they were and are at the same time means or acts by which we worship God.⁴⁴ Our sacraments of the New Law are just such external rites or acts by which we worship God, professing or acknowledging the divine excellence and our subjection to It, not by delivering something to Him (except in the case of the Eucharist as Sacrifice) but by assuming or receiving something divine.⁴⁵ They

⁴⁰ *Summa, Theol.*, III, q. 60, Introduction: This thought has been brought out by some recent theologians commenting on this tract of St. Thomas: cf. A.-M. Roguet, O. P., *Les Sacrements* (Revue des Jeunes, avant propos), p. 6. Cf. also H. Bouëssé, O. P., *op. cit.*, p. 248.

⁴¹ *Ibid.*, II-II, q. 84, Introduction; q. 89, Introduction.

⁴² *Ibid.*, III, q. 48, aa. 2-3; q. 62, a. 5.

⁴³ *Ibid.*, III, q. 61, a. 3, ad 2.

⁴⁴ *IV Sent.*, d. 13, q. 2, a. 1, ad 4.

⁴⁵ *Summa Theol.*, II-II, q. 81, a. 3, ad 2.

are also the means, the acts *par excellence*, by which we are sanctified. By the reception of the sacraments, then, we reverence God, proclaiming our faith in Christ, subjecting ourselves to the divine will by receiving sanctification through the medium of sensible signs. Let us consider then, the elements of the sacramental process and their relation to cult.

1 *

The *Res et Sacramentum*, the *Res tantum*, and Cult

The sacraments of the New Law have been instituted for two things: to be a remedy against sin, which role we have already seen; and to be a perfection of the soul in those things pertaining to the worship of God, in accordance with the rite of the Christian religion, or we might say, to make our worship a Christ-like worship. This latter is our present field of inquiry.

Some of the sacraments were to do this by deputing us *ex officio* ⁴⁶ to worship God in this rite, by configuring us to the unique High-Priest of the New Testament, imprinting on the cognitive faculty of our souls sacramental characters, which St. Thomas calls "sanctifications" ⁴⁷ or "consecrations," ⁴⁸ permitting us to take part in the authentic and official cult originated by the High-Priest of the New Law when He sacrificed Himself to the Father. By these accidental consecrations we are authorized, or acquire the power to receive or to give to others, those things pertaining to the cult of God. ⁴⁹ These actions are performed by us as ministers of Christ, or as His instruments; by us therefore, performing divine actions, as instruments, actions, which have and which receive their meaning and import from Him Who plays the principal role in the worship of the New Testament, Our Lord Himself, in His role as the One Mediator and Priest of the New Alliance. For God accepts no worship, except that which is offered "*per Ipsum, et cum Ipso*,

⁴⁶ *Ibid.*, III, q. 72, a. 5, ad 2.

⁴⁷ *IV Sent.*, d. 4, q. 1, a. 4, qcl. 2.

⁴⁸ *Summa Theol.* III, q. 63, a. 6, ad 2.

⁴⁹ *Ibid.*, III, q. 63, aa. 2-3-4.

et in Ipso." All honor and glory, and therefore, all official worship of restored humanity given to God, mounts to Him through the God-Man, Who is the Eternal Character of the Father.⁵⁰

Although the character is to dispose the soul directly and proximately to perform those actions of divine cult, or to act *ex officio* in what pertains to the Christian religion, it does not insure of itself the worthy and holy performance of these instrumental acts of cult. It is "God Who, out of His bounty, bestows on us who receive the character, the grace whereby we might fulfill those actions for which we are deputed, in a worthy manner."⁵¹ The *immediate* and *proximate* goal of the character is to dispose the soul, or more precisely, the practical intellect, in which power we find the virtue of faith, to actions of cult.⁵²

Nevertheless, it does have some connection with the *res sacramenti* or the last effect of the sacrament. For the sacramental character puts a man in a certain state, in the Christian body. It gives him a certain role to play in the Christian society, and in order to make him perform it fittingly, it postulates, unless the recipient places some obstacles in the way, the grace necessary for this. St. Thomas shows us the twofold function of the sacramental character in the response to an objection in Question sixty-three:

. . . the sacramental character is a *res* with respect to the exterior sacrament; and it is a *sacramentum* in regard to the last effect of the sacrament. From this something can be attributed to the character in one of two ways. Insofar as we consider it as *sacramentum*, it is a sign of the invisible grace conferred in the sacrament. Considering it precisely as character, it is a sign configuring the one who receives it to some principle possessing authority regarding that for which one is deputed.⁵³

⁵⁰ *Ibid.*, II-II, q. 93, a. 2, c; III, q. 63, a. 3, *sed contra*; IV Sent., d. 4, q. 1, a. 4, qcl. 4.

⁵¹ *Summa Theol.*, III, q. 63, a. 4, ad 1.

⁵² *Ibid.*, ad 3.

⁵³ *Ibid.*, q. 63, a. 3, ad 2.

The character, then, makes us instruments through which Christ continues to exercise His worship, a worship which had its origin in the sacrifice of the Cross and which now continues in the Eucharist, through which all sacramental worship of the members who have not yet attained the consummation of the sacrifice of their Head, mounts to Our Creator and Lord, Whom we now call Father.

While it is true that the sacramental character configures us to Christ, that it is a certain participation of the priesthood of Christ; and while many theologians say that the formal constitutive element of this priesthood is the grace of union,⁵⁴ we must remember that Christ was priest insofar as He was man, or more exactly, according to His human nature. Not only was He Priest according to His human nature, but He was also Victim by it. The act of cult by which He initiated the rite of the Christian religion, as Priest and Victim, was a human action if we consider the *principium quo* of this act; however, because of the Infinite Person offering it, the *principium quod*, it had an infinite value, or as St. Thomas says, "*non fuit alia ab operatione divinitatis*," considering that in this action, which was the Sacrifice of the Cross, the human nature of Christ was the instrument of the divinity.⁵⁵ The sacerdotal action of Christ, although truly the action of a Person Who is God, was nevertheless the action of this Person by reason of His human nature.

Through the character, then, we participate not in the concrete reality of Christ the Word, *Esse Infinitum*, but in the priesthood of Christ, an *office*, which exacts a *power*,⁵⁶ and which belongs to Him only according as He is man.⁵⁷

It does not suffice to say that the character gives us a participation in the Hypostatic Union, without any further ex-

⁵⁴ Cf. L. Audet, "Notre Participation au Sacerdoce du Christ," *Laval Théologique et Philosophique* (1945), I, 24 (note 3). The Salmanticenses and others consider the capital grace of Christ derived from the grace of union as the formal constitutive element. Because of the cogency of the texts they cite from St. Thomas theologians still remain divided.

⁵⁵ *Summa Theol.*, III, q. 19, a. 1, ad 2.

⁵⁶ *IV Sent.*, d. 4, q. 1, a. 2, qcl. 2, ad 3.

⁵⁷ *Summa Theol.*, III, q. 22, a. 3, ad 1.

planation. The character configures us to Christ the Priest, giving us a share in His priestly power⁵⁸ making us instruments, perpetually capable of being moved by Him Who is the principal agent in the cult of the Christian religion. It gives us no participation in the consecration of the Hypostatic Union insofar as this formally sanctified Christ. But it does impress upon us an invisible "*lumen*" as St. Thomas implies,⁵⁹ making us, as it were, "*lumina Christi*"⁶⁰ or images of Christ the Priest:

. . . every effect in a creature is produced in us by the Trinity. The character, therefore, is not merely from the Son, but from all three Persons. It is attributed to the Son, however, both because of the likeness to something proper to a Person, insofar as He is, properly speaking, the image and figure or character of the Father; and because it is the power of the Passion of Christ that works in the sacraments.⁶¹

Although it is true that St. Thomas changed his notion on the causality of the sacraments, there is no indication that he changed his mind on the relationship existing between the *res et sacramentum* and the principal effect of the sacrament, grace. In the *Summa* the Holy Doctor admits of only two effects of the sacramental rite, sacramental grace and the character. The *res et sacramentum* of the sacraments which impress a character on the soul can be considered under one of two aspects, *secundum rationem sacramenti*; or precisely as character, *secundum characteris rationem*.⁶²

Taken in the latter sense, it *directly* disposes the soul to accomplish those things which pertain to the worship of God. As a potency it is ordained toward specific operations. But like every other potency, in order that it be perfected in such a way as to perform these operations well, it must have a *habitus*,⁶³

⁵⁸ *IV Sent.*, d. 4, q. 1, a. 1, ad 3.

⁵⁹ *Summa Theol.*, III, q. 63, a. 2, ad 2.

⁶⁰ E. Doronzo, *De Sacramentis in Genere*, p. 304.

⁶¹ *IV Sent.*, d. 4, q. 1, a. 4, qcl. 4.

⁶² *Summa Theol.*, III, q. 63, a. 3, ad 2.

⁶³ *IV Sent.*, d. 4, q. 1, a. 1.

and that *habitus* is grace. The character as such, then, is a disposition for grace, but in a remote sort of way, or as St. Thomas says, *ex consequenti*,⁶⁴ or *per quamdam congruitatis dignitatem*,⁶⁵ What Fr. Doronzo applies to the *res et sacramentum* in general, we would rather apply to the *res et sacramentum*, precisely as character, that is to say, "a moral condition or exigency of a form or an effect."⁶⁶ To be a disposition for grace in this way is not something proper to the sacramental character as Cajetan points out; for there are many other things which dispose us for the reception of grace in this manner too.⁶²

We cannot, however, apply this role of the character to the *sacramentum* which effects the character, as Cajetan points out in a rather long passage which merits being quoted here:

We see that we cannot attribute to the sacrament the condition of character. Since the character is a remote and *ex consequenti* disposition for grace, it remains that grace is the principal effect of the sacrament. This would not be so, if grace were given by the sacrament only as a sequel to the character. . . . Baptism is principally a laver of regeneration as sons of God, as members of Christ, and secondarily, it impresses a character. It confers grace under the first aspect principally, and in addition, it includes something else whence it confers grace *ex consequenti*, that is because of the character . . . the character, in the order of nature, is the effect of grace, by which one becomes a formed Christian. In the order of nature, *esse*, which corresponds to grace, is prior to *posse*, which here corresponds to the character. Because of this, it is a disposition *ex consequenti* for grace, for a *posse* given by God, is accompanied either before or after the bestowal of the *bene posse*.⁶⁸

The character, or the *res et sacramentum*, rather, *secundum rationem sacramenti*, is a sign of the invisible grace which is conferred in the sacrament. Together with the *sacramentum*

⁶⁴ *Summa Theol.*, III, q. 63, a. 4, ad 1.

⁶⁵ *IV Sent.*, d. 4, q. 1, a. 1, ad 5.

⁶⁶ "Doctrina de 're et sacramento' in genere," *Revue de l'Université de l'Ottawa*, sec. spéc. (1934), 252.

⁶⁷ Comm. in IIIam Partem, q. 63, a. 4, n. 2.

⁶⁸ *Ibid.*, n. 3.

tantum, or the external rite, the *res et sacramentum, secundum rationem sacramenti* is a cause of the *res tantum*. The *sacramentum tantum* is a cause of grace *in genere causae efficientis*, while the *res et sacramentum, qua sacramentum*, is a cause of grace *in genere causae materialis seu dispositivae*, insofar as it is a disposition for the principal effect of the sacramental action. The *res et sacramentum*, under this aspect, is not a remote disposition for grace, but rather a proximate or an immediate disposition for it, that disposition of which St. Thomas spoke in the *Sentences* and in the *De Veritate*, and which he called there sacramental grace.

The only change that we find in the teaching of St. Thomas regarding the *res et sacramentum* and the *res tantum*, is not in their relationship with one another, but in relationship with their efficient cause. In the earlier works we have seen that he considered God as the efficient cause of both the form and the disposition accompanying that form, using an instrument to bring about the latter. Here he considers that God uses an instrument to bring about not only the latter, but also the former, not only the disposition, but also the form. The opinion of some theologians⁶⁹ that the Angelic Doctor changed his teaching on the *res et sacramentum* in relation to grace, or the *res tantum*, does not seem to be correct. For even in the *Sentences*, where he considered the *res et sacramentum* as the immediate disposition for grace, he also regarded it, insofar as we identify it with the character, and precisely as character, as a remote disposition for grace.⁷⁰

Briefly then, the character as such is a potency and takes its entire meaning from the object to which it is ordained, namely, actions of cult. Insofar as it is *sacramentum*, however, it is a cause of sacramental grace *in genere causae materialis seu dispositivae*.

* * *

In connection with this treatment of the sacramental character and sacramental grace it would be well to consider the

⁶⁹ E. Doronzo, *op. cit.*, p. 323.

⁷⁰ *IV Sent.*, d. 4, q. 1, a. 1, ad 5.

fifth opinion concerning the nature of the latter, of which I spoke in another article.^{70a}

At the turn of the century, in a book devoted exclusively to the determination of the nature of sacramental grace and its role, an author came to the conclusion that it was nothing but the *res et sacramentum*, the sacramental character or that which corresponds to it.⁷¹ He bases his conclusion on the notion of sacramental causality expressed by St. Thomas in the *Sentences*. Sacramental grace, he says consists in the state signified by the sacrament.⁷¹ Unfortunately he goes on to say "no sacrament, however, signifies sanctifying grace."⁷³

This is completely foreign to the mind of St. Thomas as expressed in the *Summa*. It is quite evident from the teaching of St. Thomas on sacramental signification, as we see in the third article of the sixtieth question, namely, that the sacrament signifies the form of our sanctification which consists in grace and the virtues.⁷⁴ In fact, he insists on this point as we can gather from the response to the third objection, where he says "it *suffices* for the notion (*ratio*) of the sacrament, that it signify the perfection which is the form," or we would say that the sacrament must *at least* signify the form of our sanctification.

Furthermore, he considers the *res et sacramentum* as constituting a state of the soul. This would be to *liken* (I do not say equivocate) the *res et sacramentum* of all the sacraments to the *res et sacramentum* of those which imprint a character, and precisely as character. The role of this *res et sacramentum* would thus be contracted to its role in relation to cult, and it would thus be merely a *remote* disposition for grace. He would have great difficulty in explaining the texts where St. Thomas speaks of sacramental grace as flowing from habitual grace.

^{70a} "On Sacramental Grace," *Revue de L'Université d'Ottawa*, XXIV (1954), 227 *-251.*

⁷¹ Abbé de Bellevue, *La Grâce Sacramentelle* (Paris: Retaux, 1900), pp. 103-104.

⁷² *Ibid.*, p. 103.

⁷³ *Ibid.*, p. 104-5.

⁷⁴ Cf. also q. 69, a. 4, ad 1.

The principle invoked above—*causae sunt ad invicem causae sed in diverso genere*,—can only be applied where this disposition would be an *immediate* disposition for a form.

While we must admit that St. Thomas in his earlier works identifies sacramental grace with the first effect of the sacrament which he calls the *res et sacramentum*, or the sacramental character, or the *ornatus animae*, he does not mean to identify the sacramental character, precisely as such, with sacramental grace. It is identified with it, there in the earlier works just as it is here, *secundum rationem sacramenti*, and not *secundum characteris rationem*. For only under the former aspect is it ordained *immediately* toward grace; under the latter it is ordained directly toward cult.

2 *

Sacramental Grace and its Relation to Cult

From what has just been said above one might be led to think that only the sacraments which imprint a character are ordained to the cult of God. Nothing could be further from the truth. For while it is true that not all the sacraments are directly ordained to divine worship, whereas all are ordained directly to serve as a remedy against sin,⁷⁵ nevertheless, to exclude any relationship whatsoever between the sacraments not imprinting a character and divine worship would be to falsify the sense of the article just cited, and to kill the marvelous germ of fruitfulness which St. Thomas has given to our sacramental doctrine.

Just as the Eucharist which does not imprint a character on the soul, is, nevertheless, very closely linked up with our worship, being in fact, the sacrament in which the worship of God principally consists,⁷⁶ so, too, the other sacraments not imprinting a character are related to the cult we give to God, insofar as they have as their end and goal the sacrament of the Eucharist, and insofar as they confer grace. We might say

⁷⁵ *Ibid.*, III, q. 63, a. 6, c.

⁷⁶ *Ibid.*

that the vital notion of the sacraments as emphasized more particularly in the *Summa* is connected intimately with the Christian life, which is a sacramental life, or a life of worship. It is a life of rendering to God the reverence that is due to Him as a Creator, and in the present economy of the New Law, as a Father.

Whereas the Old Law did not lead us to perfection, being the *lex timoris*, the New Law does; for it is the *lex amoris*, begun, sealed, by the sacrifice of Christ on Calvary, with the death of Our Lord. The whole tenor of the New Law comes from the fact that the heart and soul of the sacrifice which Christ offered was the manner, the way, in which He offered that act of worship by which He began the rite of the Christian religion. He suffered "*ex obedientia et caritate.*"⁷⁷

The sacraments, as certain continuations of the humanity of Christ, were to reproduce this note in the worship of the members of the Body of Christ, to make the interior *spirit* of the Head become also the spirit of the other members joined to it to form the "*quasi una persona mystica.*"⁷⁸

Sacramental grace was to insure the continuation of this *holy* worship which God exacts of a creature, of a worship not merely external, but permeated with the spirit of Christ Himself, which was a spirit of love. The spiritual life, or the sacramental life, is in all of its phases connected with the worship of God, or with the virtue of religion, by which we worship God.

The cult that is given to God under the New Alliance is not according to our determination, but rather according to that established by God; and that is, that under the present plan of Providence sanctification and worship be so closely linked together that they should both be realized in the same sacramental rite.⁷⁹ For, under the New Law, by leading this life of giving and receiving according to the sacraments of the Christian life, we lead a life of cult, insofar as we are constantly, through the sacramental order, professing our faith in God and the dispensation He has planned from all eternity.

⁷⁷ *Ibid.*, q. 48, a. 2, c.

⁷⁸ *Ibid.*, q. 48, a. 2, ad 2.

⁷⁹ *Ibid.*, q. 60, a. 5, c.

We saw above that the sacramental character in no way gives us a participation in the grace of union insofar as the latter formally sanctified the humanity of Christ. It was this uncreated grace of union which made Christ the "holy one of Israel," or Sanctity itself. It was because of this holiness that the cult given to God by Christ the Priest, according to His human nature, was so pleasing to God. The sacramental graces were to give us, the instruments which Christ by means of our sacramental character uses in the continuation of the cult He began on Calvary,—the sacramental graces were to give us a participation of this holiness, so that our worship, through, with and in Christ Our Lord might also be pleasing and acceptable to God, as well as holy in His sight. They were to give us this holiness in proportion to and according to the different relationships in which the sacraments place us in our Christian religion; for the soul was to be sanctified for the living of the Christian life, which is the Christian religion, according to the significations of the various sacramental rites. The latter were not intended to sanctify us by formal sanctifications differing essentially from one another, but rather, by one and the same sanctification given in different ways in accordance with the various phases of our life in Christ. In other words, all the sacraments confer the *same life*, but not in the *same mode*, or manner. The sacraments, therefore, modify the grace they give, sanctifying their recipient according to the role he is to play in the cult of the Christian religion.

The spiritual effects indicated by St. Thomas in giving us the comparison between the spiritual life and that of the body are none other than those which are given by the grace of the virtues and of the gifts. Our life is not essentially changed by our maturing; the life of a man, for example, is not essentially different from that of a boy. Nor do we see a change in a life that is restored by the use of some remedy, or through a cure; it is the same life, now restored, either in a complete or in an incomplete manner. In regard to nourishment, the food that we eat does not serve to produce in us new principles of life or of

action; it serves to build up that which was lost, to fortify and give us the necessary strength for the work of the present and of the future. Similarly, there is no change in the internal structure of a man who receives a position in government; he is perfected insofar as he must rule well not only himself, but also those over whom he is placed. He lives the *same* life, but according to a certain office or state. Likewise the state of matrimony does not change—add to, or subtract from,—or alter in any way the internal structure of our corporal life. It places us in a social status where we live our life with the purpose of perpetuating that life in others.

So, too, in the spiritual life; there is no essential change in a life which is developed or restored. It remains one and the same life adapted, or as Cajetan says, “extended” to meet the requirements of new circumstances. Nor are the actions required for the various phases of this spiritual life substantially different in any one of them. They spring from principles that are essentially the same, although affected accidentally in accordance with the demands of the particular situation in which the soul finds itself.⁸⁰ It is these special “states, or relationships”⁸¹ which might bring into play more especially this or that principle of action rather than others, and in this or that way.

We cannot emphasize this comparison too much. It is in perfect harmony with the whole of the sacramental doctrine of St. Thomas. For the sacraments were given to us because of the condition of our nature, that we should be led to an understanding of our sanctification through the medium of sensible signs. Since the sacraments were to be concerned with a new *life*, it was only fitting that it be given to us under significations or symbols which would correspond to similar aspects of

⁸⁰ N. B. It must be remembered that we are speaking of sacramental *grace*, and not of the sacramental character which does give us a principle which we did not have previously with respect to our actions as *instrumental* causes; sacramental grace, however, is concerned with us as *principal*, even though secondary, causes in the supernatural order.

⁸¹ *Summa Theol.*, III, q. 65, a. 1, ad 2.

our corporal life. In the *Summa* we find St. Thomas treating of the individual sacraments, constantly reverting to this comparison, in describing their positive or perfecting effect. He is merely continuing the initial step he took in beginning the sacramental tract, by emphasizing the notion of *sacramentum-signum*, without, however, destroying the notion of the *sacramentum-secretum*, or the mysterious element that must remain in the sacrament.⁸²

Under no condition are we forced to bring into our consideration new principles of action, or *habitus*, in regard to this spiritual life, any more than we are forced to have recourse to this in considering the various phases of our corporal life. In other words, because of this comparison protracted throughout the entire sacramental tract of St. Thomas, the opinion that he visualized the sacramental graces as adding new *habitus*, entitative, quasi-entitative, or operative, is entirely without foundation, if we consider the texts of the *Summa* in which he speaks about them *ex professo*.

Furthermore, St. Thomas retains here in the text the opinion of certain theologians who accepted the number of the sacraments by a kind of adaptation to the virtues and to the defects of our sins and punishments;⁸³ he retains this opinion not as his own, as we can readily see, but he does not reject it completely. If he held that the sacraments through the sacramental graces added new *habitus*, then he certainly would have refuted this opinion, for the two are opposed to one another. Moreover, there is more than a coincidence involved between considering the number of sacraments "by a kind of adaptation to the virtues," and the thomistic teaching that the acts to which the various sacramental graces are ordained are substantially the same as those to which the grace of the virtues and of the gifts is ordained.

In conclusion, then, from our study of the *Summa*, very briefly, sacramental grace is specifically Christian, coming to

⁸² Cf. St. Thomas, Prologue to *I ad Cor.*

⁸³ *Summa Theol.*, III, q. 65, a. 1, c.

us as it does through the Passion of Christ. The healing effect of sacramental grace carries with it the application to us of the satisfactory power of the Passion of Christ, freeing us from the *reatus poenae* taken in its complete sense. The perfecting power of this grace is merely the determination of our grace-life in accordance with the exigencies of a spiritual life which of its very nature gives praise to God through, with and in Christ Our Lord. Habitual grace, therefore, of itself ⁸⁴ merely elevates to divine adoption; sacramental grace which is a modification of this *habitus*, elevates us to divine adoption, and in addition heals and strengthens us for a determinate phase of our life in Christ.

III

CONSEQUENCES OF THIS CONCEPTION OF SACRAMENTAL GRACE

§ 1

Sacramental Grace and Actual Grace

The sacramental rite of its very nature is intended to produce directly the *res tantum*. There is no intermediate stage which acts as an efficient cause, in the strict sense of the word, necessitating the infusion of grace. Nor does the sacramental character, *secundum rationem characteris*, give the recipient a right to the principal effect of the sacrament. That which gives the right to the infusion of grace, insofar as we can speak of a right, is the *res et sacramentum ut sacramentum est*, that is, insofar as it is joined to the external sacramental rite, in which, according to St. Thomas, the notion of *sacramentum* is principally found.⁸⁵

What is the connection, however, between sacramental grace and the actual graces we receive after the reception of a sacrament in order that we might attain the end of the sacrament? That is our present question.

Actual grace is necessary for two things, namely justification,

⁸⁴ N. B. That is, abstracting from any given economy.

⁸⁵ *IV Sent.*, d. 7, q. 1, a. 1, qcl. 1.

that is to say, to dispose us for the reception of sanctifying grace, and also for the accomplishment of supernatural actions even in the case of one already justified. The necessity for this actual grace after justification comes from the condition of our human nature in the present state. The infusion of grace does away with the formal element of original sin by healing the mind, but it does not remove the material element, for there remains in our nature a corruption and infection with regard to the flesh, and a certain obscurity in the intellect. For this reason as well as the more basic one of physical pre-motion we need the help of God directing and protecting us even after justification. And this help is supernatural *quoad substantiam* with respect to supernatural acts.⁸⁶ Those theologians who maintain the theory of intentional causality in regard to the sacraments claim that the *res et sacramentum* is the title not only to sanctifying grace, but also to all the succeeding actual graces necessary for the ends of the sacrament, to be conferred at the opportune time. For them, therefore, the character or the *res et sacramentum* is the foundation or fundament for the relation that exists between the right and the actual graces.

There is one difficulty to this solution phrased very aptly by Fr. Bouëssé:

Who would maintain, however, that souls marked sacramentally with something independent of the sanctifying grace received, who would maintain that even in the state of sin they still have a real right to actual graces capable of being regarded *as sacramental*? I agree that God might not allow the Christian or the priest to remain a sinner; but can the sacraments exercise really by virtue of that which remains of them in those who knowingly and voluntarily have received them without fruit, can these sacraments *exact* actual graces corresponding to the sacramental sanctification which they normally ought to have produced?⁸⁷

There is no question of whether the character or the *res et sacramentum* brings about the ultimate effect of the sacrament

⁸⁶ *Summa Theol.*, I-II, q. 109, a. 9, c.; cf. also R. Garrigou-Lagrange, O. P., *De Gratia*, pp. 81-82.

⁸⁷ *Op. cit.*, p. 245.

when the obstacle is removed, through a physical, or at least, through a moral causality. But that the character or the *res et sacramentum secundum rationem characteris* should give a right to sanctifying grace or to the actual graces corresponding to the sacramental sanctification in one who is in the state of sin, this does not appear to be true. No one in the state of mortal sin merits justification or has a right to the actual graces necessary to arrive there.⁸⁸

We said above that the *res et sacramentum ut sacramentum est* is that which exacts the infusion of grace. The character or the *res et sacramentum ut character est*, or *ut res est*, is merely a moral condition postulating the infusion of grace. In regard to the actual graces, therefore, given after sanctification, another opinion has been proposed by theologians which seems more consonant with the doctrine of Aquinas. Sacramental grace is the fundament for the right to the actual graces corresponding to the ends of the sacrament. This moral right is a relation and as such exacts a fundament, something permanent and intrinsic in the soul. Sacramental grace not only adds this right, but is the very fundament for it.⁸⁹

These actual graces, then, presuppose a state, that is a permanent fundament to which they correspond. This is nothing other than the Christian life, or the spiritual life of which St. Thomas spoke in the sixty-fifth Question. The sacramental graces as various states or aspects of this spiritual life are sanctifying grace modified or adapted to meet the ends or needs of a particular state in it. Since it is a *habitus*, it disposes us to act connaturally in this or that particular phase of our life in Christ. But like the *habitus* of sanctifying grace of which it is only a modification, it must be helped in order to proceed to its actions by actual helps.⁹⁰ John of St. Thomas sums up the problem thus:

⁸⁸ *Summa Theol.*, I-II, q. 114, a. 5, c.

⁸⁹ R. Garrigou-Lagrange, O.P., *De Unione Sacerdotis cum Christo Sacerdote et Victima*, p. 16.

⁹⁰ *Summa Theol.*, I-II, q. 110, a. 2, c.

In order that a person might bring about these effects (sacramental actions), the actual concursus of God does not suffice, unless we presuppose a form or perfection to which that concursus is accommodated; for it is not only God Who operates, but also the person, and not as a mere instrument, but as a principal cause. . . .¹⁹

In regard to sacramental actions, and that is what we are considering, man acts as a principal, even though secondary, cause. He needs a form, therefore, by which he can carry out his sacramental actions *connaturally*. These actual helps, given with an eye to producing sacramental acts, correspond to a sacramental form, habitual grace given to the soul through the modification of the sacramental rite or they correspond to a sacramental grace. Not that there are seven sacramental forms differing from one another specifically, metaphysically speaking; ²² it is the *same* form with the *same* principles of action directed to the *same* objects, surrounded, we might say to use a comparison, by different circumstances not changing the species of the objects.

The actual graces, then, are ordained to move a vital principle to its actions. The sacramental grace, by placing one in a *vital* role in the supernatural life, is that which exacts the actual helps from God that are necessary to accomplish that role. We can say, then, that it is the disposition of the recipient brought about by the *res et sacramentum*, that exacts the infusion of sacramental grace, and it is the latter which demands from God the necessary grace helps for the accomplishment of the ends of the sacrament.

§ 2

The Growth of Sacramental Grace

Naturally speaking, anything that is vital or living is capable of growth and development. This is no less true of sacramental

¹⁹ *Cursus Theologicus*, IX, q. 62, disp. 24, a. 2, n. 12 (Paris: Vives, 1885).

²² "Nec potest dici quod gratia sanctificans sit vere et essentialiter genus metaphysicum gratiae sacramentalis; sic enim ex gratia sanctificante et gratia sacramentali fieret unus habitus essentialiter, sicut ex genere et differentia fit unum, cum tamen gratia sanctificans sit unius speciei atomae" *ibid.*, n. 19.

grace. This necessarily follows from the fact that it is essentially the same as habitual grace, which is capable of increase, since "progress in the motion of grace or in the development of our spiritual life is according to the increase of charity or grace."⁹³ Just as we say that the virtues and the gifts become more radicated and intensified, so too, we can say that the sacramentalized virtues, or the principles of our sacramental actions corresponding to the sacramental duties of a sacramental life, become more firm, more intense, and more prompt.

Herein lies the beauty of this conception of the nature of sacramental grace. The sacraments infuse into us or perfect in us a new form, which is nothing short of grace itself, creating us, as it were, in a new existence, which is that of a son of God.⁹⁴ For grace is given to us in the sacraments, to heal and to elevate us communicating to us creatures a likeness of the eternal natural filiation of the Son of God,⁹⁵ enabling us to carry out, in a fitting and holy manner, the actions of our position in a life which is specifically Christian "remedially and perfectly," to use an expression.

To a certain extent we may subscribe to the assertion of several theologians who maintain that sacramental grace is not given in its entirety at the moment of the reception of the sacrament. Our manner of conceiving this growth is through the increase or radication of the habitual gift of sanctifying grace, adorned, so to speak, with a certain healing power and strength flowing into the virtues and the actions which they produce in our spiritual life. For them, however, its nature is the ensemble of the gifts given in the sacrament and the consequent actual graces.⁹⁶ But as Fr. Neveut notes:

The Christian who is in the state of grace ought to have, more than anyone else, a certain right to actual graces, and the more intense

⁹³ *Summa Theol.*, I-II, q. 114, a. 8, c.

⁹⁴ *Ibid.*, q. 113, a. 2, c.; q. 110, a. 2, ad 3; a. 3, c.

⁹⁵ *Ibid.*, III, q. 23, a. 1, ad 2, and a. 2, ad 3.

⁹⁶ Hurter, S. J., *Theologiae Dogmaticae Compendium*, III, n. 269.

that state of grace is, the greater should be his right. But the question of the consequences of sacramental graces is different from that which is concerned with their nature.⁹⁷

This growth of sacramental grace is had through the repeated reception of a sacrament, and therefore, *ex opere operato*, or through the performance of meritorious actions corresponding to the requirements of a certain sacrament, and therefore, *ex opere operantis*.

In a similar manner, the loss of sacramental grace is intimately bound up with habitual grace also. These special permanent helps given by sacramental grace are lost when the latter is lost. For since it is only a modification of habitual grace, whatever would destroy the latter would also destroy the former.

* * *

We may sum up the thought of St. Thomas on the nature of sacramental grace in the *Summa* under the following points:

1. Considering the efficient causality of the sacraments, the term "*gratia sacramentalis*" refers not merely to the special effect of the sacrament, but to the grace of the virtues and of the gifts plus the special help or determination which it has under the present economy and in accordance with the sacramental symbolism geared to meet the ends of the sacrament.
2. Considering sacramental grace in relation to its final and material causes we may conclude:
 - a. that the sacramental effect, insofar as it heals the soul, brings with it the application of the satisfactory merits of the Passion of Christ. For it is ordained to remove the *reatus poenae* or the effects which sin has left in the soul, and for which we remain under obligation to make atonement to God, or satisfaction.
 - b. that the sacramental effect, insofar as it perfects the soul, is a determination or special help flowing from grace into the principles of our supernatural actions, the virtues, strengthening and directing our spiritual life to meet the requirements of the place we hold in it.
3. The special effect which it adds is not a *habitus*, insofar as its

⁹⁷ "La grâce sacramentelle," *Divus Thomas* (Piacenza: 1935), XXXVIII, 285 (note 3).

functions to heal and to perfect do not require a new form, but rather affect another form, the grace of the virtues and of the gifts, either *per modum dispositionis specialis*, or *per modum effectus specialis*, depending on the genus of causality under consideration. If we take it in the former sense, it is the *res et sacramentum secundum rationem sacramenti*, according to which it acts as an "*ornatus animae*," or a disposition for the principal effect of the sacrament, the *res tantum*. If we take it in the latter sense, it is the *vigor specialis* added to the grace of the virtues and of the gifts.

4. Sacramental grace has a similar relation to consequent or subsequent actual graces given to accomplish the actions towards which it is ordained, as does habitual grace. Similarly, its growth or loss is like that of habitual grace, of which it is but a modification.

* * *

GENERAL SUMMARY AND CONCLUSION

In retrospect to our study, we see that any understanding of the nature of sacramental grace must necessarily take into consideration the fundamental notions of the tract on Grace in General, especially the fact that all grace given to man after the Fall has not only the aspect of *elevans*, but also that of *sanans*. For the state of man after the Fall found him divested of his seamless garment and demanded a grace that would move him not from the position of one merely lacking something, but from the position of one lacking something that he ought to have.

Because of our nature which is that of a spiritual and material composite, and because of sin which rendered us even more estranged from the things of the spirit, this grace, as something invisible, was to be given to us ordinarily through sensible things which both signify and cause it in the Christian economy that we know today. God made these sensible rites correspond in their symbolism to certain phases or phenomena which we encounter in our natural life, just as He explains the most sublime mysteries of our Faith through the medium of things which make up part and parcel of our everyday existence. For the benefit of man, therefore, lest it be too difficult

if his sanctification were to be effected in a manner which would wholly abstract from corporal action,⁹⁸ God instituted the sacraments of the Christian life conforming us to Him, as we make our *reditus ad Deum* in His Spirit as miniature "*imagines et splendores Patris*."

Because the sacraments receive their efficacy to heal and to elevate through the Passion of Christ, they are, as it were, certain continuations of it, working the effects it worked, not in a universal manner, but in a manner limited to the symbolism and signification of the sacramental rite. These "corporal exercises"⁹⁹ would serve to arouse certain sentiments in man, sentiments which would differ according to the various exercises, and which would act as so many different dispositions or "*ornatus*" exacting, so to speak, the infusion of grace, in such a mode or manner as to make it capable of producing this or that special effect toward which the exercise was ordained.

This specific corporal exercise was not to add anything by way of a principle of action to the grace which was to come as its effect; it was merely to prepare the way for and induce into the soul this grace specially extended, as Cajetan would say. It was to do this, not by its own proper action, but in an instrumental capacity as elevated and moved by the principal agent Who limits and determines the effect.

Although it is true that St. Thomas frequently compares the special effects of the various sacraments to the virtues, this comparison is not intended to equivocate their natures; it is intended to show the dependence of these special effects on the grace perfecting the essence of the soul. For they cannot be had (at least as formed effects) without this grace, as neither can the virtues.

The sacramental rite confers a "species" or a special type of grace, or it gives grace *in a certain manner*. It causes this special grace and the special disposition that accompanies it, not as a principal cause but as an instrumental cause, which God Himself, as the cause of both the special grace and the

⁹⁸ *Summa Theol.*, III, q. 60, a. 1, c.

⁹⁹ *Ibid.*, ad. 2.

special disposition, employs, to effect this or that special extension of the grace of the virtues and of the gifts. The special effect which flows out of the grace of the virtues and of the gifts is *not* an effect different from that which serves as a special disposition for the "species" or mode of grace given. It is the *same* effect, considered under another aspect in accordance with the principle "*causae sunt ad invicem causae, sed in diverso genere.*"

Furthermore, the sacraments of the Christian life insofar as they are continuations of the Passion of Christ, and of a Passion that has already been endured, apply to those who receive them the full satisfactory merit of this Passion which we can expect to have here on earth, always, however, a satisfactory merit in accordance with the symbolism of the individual sacrament. Although the sacraments of the Old Law applied the satisfactory merits of the Passion of Christ, they did so in a limited manner, as we evince in the Holy Fathers of the Old Testament, who were retained *in inferos*, not because of their personal sins which were already atoned for in virtue of the satisfactory merits of Christ's Passion still to be enacted, but because of the sin which affected their nature; for the satisfactory power of the Passion not yet endured did not reach the *reatus poenae* of this sin.

We should also note that the special effect which each of the sacraments produces, if considered as the disposition for sacramental grace, is the *res et sacramentum* of the particular sacrament, not insofar as we consider it as a *res*, as an effect of the sacramental action, but precisely insofar as we consider it in its relation to the *res tantum* or the sacramental grace of any one sacrament; that is to say, insofar as it is a *sacramentum* and insofar as it is a *signum*. For it is a *sacramentum* when joined to the external sensible sign;¹⁰⁰ it is a sign with regard to the invisible grace conferred in the sacrament.¹⁰¹

¹⁰⁰ ". . . character baptismalis et corpus Christi verum non dicuntur sacramenta nisi secundum quod conjunguntur exterioribus signis sensibilibus." *IV Sent.*, d. 1, q. 1, a. 1, qcl. 3, ad 3.

¹⁰¹ *Summa Theol.*, III, q. 63, a. 3, ad 2.

N.B. Just as a grace corresponding to the *res tantum* of a sacrament can be

The Christian sacramental life has as its goal the restoration of mankind, a restoration which extends not only to the mind, but also to the body.¹⁰² It was to bring back to us, in some degree, while still here on earth, something of the perfect harmony of matter and spirit, to one another, and to their Creator, which existed in the state of innocence. Even though this harmony does not attain to the perfection it had in our first parents, nevertheless the very imperfections which remain have a grandeur almost inconceivable. For by the various sacraments we either become members of Christ, or are more firmly cemented to Him, resembling Him, participating in His work, as we like other Simons of Cyrene help to carry the Cross of the Son of Man with something of the Spirit with which He Himself carried it.

The sacraments of the Christian life, however, were not to effect *actually* any immortality such as Adam and Eve enjoyed in the state of innocence. Those who receive the sacraments remain under the necessity of undergoing the sufferings of the present life. But the sacraments are the ordinary means by which we are marked with a pledge¹⁰³ which will one day cause that Sacrament from Whom all the sacraments of the Christian life derive their efficacy, the "*Magnum Pietatis Sacramentum*,"¹⁰⁴ to raise us to an immortality far surpassing that of our first parents, insofar as we shall share in the glory, the joy, and in the triumph of the Resurrection of Christ the Incarnate Son of God.

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given outside of the sacramental rite, so too an effect corresponding to and coinciding with the *res et sacramentum qua sacramentum* can be had outside of the sacramental rite. Cf. Sylvester of Ferrara, *Comm. in IV Cont. Gentiles*, c. 72, n. xviii; Leonine Ed. XV.

¹⁰² A.-D. Sertillanges, O. P., *L'Eglise* (Paris: 1917), I, 228.

¹⁰³ II Cor. 5: 5; Ephes. 1: 14.

¹⁰⁴ I Tim. 3: 16.

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BOOK REVIEWS

Théologie Trinitaire chez St. Thomas D'Aquin. By PAUL VANIER, S.J.
Paris: Vrin, 1954. Pp. 156.

St. Thomas' treatise on the Mystery of the Most Holy Trinity in the *Summa Theologiae* is probably the most perfect piece of scientific theological writing ever penned. In it the Angelic Doctor, with perfect consciousness of the infinite distance between the divine reality and the human modes of conceiving and expressing it, humbly utilized all the resources of faith and reason to reach some understanding of the inner life of God. Much has been written about this treatise of St. Thomas, but new studies are always welcome. Fr. Vanier is here engaged in presenting a new interpretation of the development of St. Thomas' thought and of his supposedly final position arrived at only in the *Summa*.

The author starts with two well-established facts: the diverse approaches of the Greek and Latin Fathers to the mystery of the Trinity; the pre-eminent influence on the Scholastics of Dionysius, a representative of the Greek tradition, and of St. Augustine, a representative of the Latin tradition and himself the source, to a great extent, of that tradition.

In Chapter I the author is concerned with expressing these diversities. The Greek Fathers, concerned primarily with the problem of the origin of the Persons, tended "d'envisager la pluralité des Personnes divines dans leur jaillissement du Père, *Divinitas fontalis*. A cette étape, la spéculation trinitaire n'envisage pas directement la nature divine, hors des Personnes qui y participent et qui la reçoivent du Père par procession. Bien plus, comme elle tire toute sa lumière de la considération de la fécondité du Père, cette théologie aura tendance à voir dans la création l'oeuvre de celui-ci en prolongement des processions." (p. 16)

Latin theology, on the other hand, (especially after Arianism) "manifestera davantage et directement l'unité de la nature divine et en conséquence l'hiatus abyssal entre la divinité trine et la création." (p. 16) This diversity of approach had its effect on the concept of notional act: "Au premier moment de la théologie trinitaire, l'action notionnelle se présenterait sous la forme d'un jaillissement d'une Personne de l'autre. Certains ont vu là une utilisation du concept néoplatonicien d'émanation. Dans la théologie trinitaire augustinienne, le concept de procession, qu'exploite l'analogie psychologique, a pris une place capitale; mais ce concept s'attache davantage à l'aspect *essentiel* des opérations divines, il les considère plutôt en tant qu'attributs divins qu'en tant qu'actes personnels." (p. 18)

In Chapter II the author undertakes to show that among the Scholastics

(up to St. Thomas in the *Summa*) trinitarian doctrine was basically augustinian with an "antique" dionysian coating. The tell-tale sign of dionysian influence is the notion of good diffusing itself. "Et c'est ainsi que la perspective néoplatonicienne centrée sur la source *diffusive* du Bien, attire de nouveau, au Moyen Age, la théologie trinitaire vers les problèmes de l'origine des personnes." (p. 22) Another sign is detected in the formulas employed: "Par ailleurs, n'oublions pas que tous les développements dionysiens, centrés sur la Bonté du Père, semblaient continuer une tradition ininterrompue qui avait constamment usé des formules archaïques telles que: *Pater, divinitas fontalis; Pater, principium totius divinitatis*; legs des Pères grecs qu'Augustin, par respect peut-être, avait manqué d'éliminer de sa propre théologie dont elles contredisaient pourtant toute la perspective." (p. 23)

Chapter III is devoted to the establishment of the presence of the dionysian influence among St. Thomas' contemporaries. In Chapter IV the author takes the first steps towards establishing his thesis, which is, that only in the *Summa* has St. Thomas himself succeeded in divesting himself of all traces of this same dionysianism. It is quite evident in the *Quaestiones Disputatae de Potentia*, which are nevertheless basically augustinian. It would be even more predominant in the *Commentary on the Sentences* if the text we now possess had not been emendated by St. Thomas after he had arrived at his later position. (The author offers his proof for this statement in the second part of his work, which we are not going to consider in this review).

In Chapter IV, the author begins his analysis of St. Thomas' trinitarian teaching in *de Potentia*. He points out that the last four questions form a little treatise on the Trinity. In a footnote (n. 3, p. 40) he adds: "Si on relie cette Question (Q. VIII) à la deuxième, l'étude de la relation vient immédiatement après l'étude des processions divines, et elle fonde toute la speculation trinitaire subsequent." Now since Q. II is going to be his principal source of evidence that the dionysian outlook is still present in *de Potentia*, it is surprising that the author does not indicate the subject of Q. X, which is, "De Processione divinarum personarum."

How does the author go about showing this dionysian influence in the *de Potentia*? First he quotes from Q. II, in which St. Thomas identifies the *potentia generandi* with *omnipotentia*. It would be alarming if St. Thomas did otherwise, since they are *re eadem*. St. Thomas clearly indicates the distinction between them; this does not satisfy the author, who will not admit that the diverse character of a *Quaestio Disputata* and a *Summa* are sufficient explanation.

Next he seeks evidence in Q. IX, a. 4. Here St. Thomas cites Dionysius in a *Sed Contra* and approves (p. 46). This article is entitled: *Utrum in divinis sint tres personae tantum, an plures vel pauciores*. St. Thomas gives

six *Sed Contra* arguments, using about every reason of convenience proposed by his predecessors. They are not used by the Saint in his own response. But Fr. Vanier also quotes from the *corpus* of the article, but from the second part, where St. Thomas turns to the vestige of the Trinity in irrational creatures and the image in man for further confirmation of the number Three. St. Thomas' formal argument, from the immanent processions, which is identical doctrinally with the *Summa*, is passed over. The author might object that he had already admitted that *de Potentia* is also augustinian and this passage is an example. But he cannot establish his thesis by quoting dionysian influences on the periphery of a solution in *de Potentia*. He must show that such influence prevented St. Thomas from formulating his principal arguments in an adequate way.

The chief piece of evidence is taken from *de Potentia*, Q. VIII, a. 3, where a combination of texts from the *ad 5um* and *ad 7um* leads the author to this conclusion: "St. Thomas qui a explicitement réduit à la relation tout aspect personnel de la vie trinitaire, peut sans se contredire répéter les affirmations dionysiennes de ses contemporains. Pour ce faire, il distingue, dans la relation subsistante de paternité, l'aspect relatif, subséquent pour l'esprit à la génération, et l'aspect absolu qui s'identifie—même pour l'esprit, semble-t-il—with l'essence divine *commune* aux trois personnes. Et alors, percevant l'essence *commune* avant la génération, nous percevons à la fois l'aspect absolu de la relation constitutive du Père. C'est ainsi que l'esprit saisit l'essence appartenant au Père comme principe" (p. 44). In this review, all italics in quotations from Fr. Vanier are his. True, the wording of the responses quoted, at first glance, might lead one to think that St. Thomas is speaking of an hypostasied essence, as he does elsewhere; but in *ad 11um* he clearly indicates his mode of conceiving the Father as a Person before generation: "Hoc ergo ipsum quod est esse suppositum divinae naturae, commune est tribus personis communitate rationis, licet tres personae non sint unum suppositum, sed tria; sicut Socrates et Plato sunt duo homines, licet esse hominis sit eis commune secundum rationem. Differentia autem quaeritur non solum in illis in quibus est aliquid commune secundum rem; sed in quibus est aliquid commune secundum rationem." In the *Summa*, I, q. 30, a. 4, St. Thomas devotes the whole article to elucidating this point: he is speaking of the "*individuum vagum*" and not "de l'aspect absolu qui s'identifie—même pour l'esprit, semble-t-il, avec l'essence commune aux trois personnes."

This is a crucial point and we might pause to ask ourselves the following questions: If there were only one Person in God, would there be a distinction between person and nature? Could such a God become incarnate? If He did, would the union be in Person and not in nature? And, finally, in such a case, could we express the difference between person and nature in God adequately, though less clearly than now, when we know that relation pertains to the constitution of the person?

To return to our author's argument. We can readily admit that in the text of *de Potentia* there are more passages with a dionysian tinge that can be quoted out of context. But an objective study of St. Thomas' own argumentation will show no change of position in the *Summa*, unless one agrees that the doctrine Fr. Vanier finds there is truly that of St. Thomas. We might add that practically all the formulas that Fr. Vanier accuses of being dionysian recur in the *Summa*. There is not sufficient space to document this statement but it is easy to verify.

With Chapter VIII Fr. Vanier begins his consideration of the *Summa*. He is much impressed by the fact that St. Thomas starts with the concept of "procession" and does not mention "notional act" until much later. "Ainsi pour la première fois, à notre connaissance, le concept d'action notionnelle est clairement distingué de celui de procession: ce dernier envisage l'action immanente à la nature divine en tant que propriété indéterminée de la nature, et l'autre en tant qu'attributable à la personnel." (p. 58) Note, please, the phrase: "propriété indéterminée." Two pages later, the author states: "Dans le concept de procession purifié de tout aspect notionnel et, pour cette raison même, si facile à scruter par l'analogie psychologique, le Docteur angélique obtenait la vérité première de sa théologie trinitaire scientifique; dans le concept distinct d'action notionnelle, il ne satisfait ultimement qu'à une exigence de l'esprit." (p. 60) Here note the final part of the quotation: one would hesitate to accuse the author of contempt for the "demands of the mind" on the basis of this statement alone. But there are other instances, e. g., pp. 84, 86. In fact he indicates no awareness of the importance of grammar and logic, especially the *modi significandi*, in St. Thomas' formulation of trinitarian doctrine.

It must be confessed that Fr. Vanier's explanation of St. Thomas' concept of procession is difficult to interpret. He states: "Dans les trois Questions suivantes (*Summa*, I, qq. 29-30), Saint Thomas argumente toujours en considérant la nature divine en elle-même et en tant qu'elle inclut les trois personnes." (p. 63) It is true that St. Thomas shows perfectly that the processions belong to the nature of God. The question is: does he explain them as arising from a "*propriété indéterminée*" of the nature. Assuredly not! Take for example his definition of generation, which the author also quotes: "Sic igitur processio Verbi in divinis habet rationem generationis: procedit enim per modum intelligibilis actionis, quae est operatio vitae: et a principio conjuncto. . . ." (*Summa*, I, q. 27, a. 2, c.). Notice: "per modum intelligibilis actionis" together with "a principio conjuncto." What is this "conjoined principle"? Nowhere does the author advert to it, yet it is the sign that St. Thomas' explanation is formally notional, though he does not reflexively advert to it as such in this place. Nor need he; he has the datum of faith that there are real processions in God.

In Chapter IX Fr. Vanier presents his original interpretation of the concept of person and nature in the *Summa*. He finds a marked difference in the way St. Thomas conceives of person and nature in this work and attributes to this the different view of notional act which he also finds there. In sum, he maintains that St. Thomas finally attributed to relation in its proper being the constitution of the person as subsistent in the Trinity: in previous works, the relation constituted the person only inasmuch as it was identified with the essence. "En montrant comment la relation constitue exclusivement la personne divine tant comme subsistante que comme opposée aux autres personnes et distincte d'elles, saint Thomas achève le développement du point crucial de la théologie trinitaire augustinienne." (p. 76)

Unfortunately, the arguments of the author are not sufficient to convince us that St. Thomas has adopted such a position. First of all, the author contrasts St. Thomas statements on the signification of person in the two works under discussion. In *de Potentia*, Q. IX, a. 4, St. Thomas, discussing the notion of person, makes a distinction between formal and material signification; he clearly indicates the distinction between them — formal, signifying the general concept, with notes valid for every person, material, signifying the notes proper to a divine, angelic or human person. Here is Fr. Vanier's reading of that distinction: "Dans le *de Potentia*, en effet, saint Thomas disait que la relation n'était incluse que *materialiter* dans la signification du mot *personne* en Dieu. . . . Par conséquent, le rôle de l'essence est, semble-t-il, d'assurer *formellement* la subsistance de la personne divine. . . ." (p. 70)

He next explains the position of St. Thomas in the *Summa*: "Si donc, dans la *Somme*, saint Thomas tient que le mot *personne* désigne immédiatement la relation, et la relation en tant même que subsistante,—*per modum hypostasis relationem ut subsistentem*—il entend que la relation elle-même, dans son *être* propre, subsiste comme personne divine; qu'elle-même constitue le *subsistens distinctum in natura divina*" (*ibid.*). There is no mention (at least at this point) that the parallel place in the *Summa* is not that cited by him on p. 71, fn. 2, but this: "Ad evidentiam hujus quaestionis considerandum est quod aliquid est de significatione, minus communis, quod tamen non est de significatione magis communis; . . . Similiter aliud est quaerere de significatione huius nominis persona in communi, et aliud est de significatione personae divinae" (*Summa*, I, q. 29, a. 4, c.).

Certainly the terminology "formaliter" and "materialiter" was misleading and hence St. Thomas changed it. He does not change his position on the distinction between the common signification of divine person. It is only when St. Thomas begins to speak of a *divine person* that the problem arises as to whether it signifies essence directly and relation obliquely, or vice versa, or, in a very special sense, neither.

In his effort to establish the point that St. Thomas in the *Summa* places the notion of person formally in relation, the author quotes only part of the reply. Since this article is the key-stone of St. Thomas' treatise, the reader will bear with us if we quote it more fully. "Persona igitur divina significat relationem ut subsistentem. Et hoc est significare relationem per modum substantiae quae est hypostasis subsistens in divina natura; licet subsistens in natura divina non sit aliud quam natura divina. Et secundum hoc verum est quod hoc nomen persona significat relationem in recto et essentiam in obliquo; non tamen relationem in quantum relatio, sed in quantum significatur per modum hypostasis. Similiter etiam significat essentiam in recto, et relationem in obliquo, in quantum essentia idem est quod hypostasis; hypostasis autem significatur in divinis ut relatione distincta; et sic relatio per modum relationis significata cadit in ratione personae in obliquo."

As we noted above, Fr. Vanier quotes this text without citing the second part, beginning, "Similiter etiam. . . ." Of it he says: "Cette proposition, préférée maintenant par saint Thomas, est la contraire même de celle du *De Potentia* qui tenait que *relatio includitur oblique in significatione personae divinae*." (p. 69) In a footnote (*ibid.*, fn. 8) he adds: "Dans la *Somme*, saint Thomas ne refuse pas toute vérité à cette formule. Il ne l'accepte cependant plus comme la meilleure." If we reread St. Thomas' full text, it becomes difficult for us to understand how Fr. Vanier can state which formula St. Thomas expresses a preference for; the "similiter etiam" indicates an equality. But Fr. Vanier misses the cardinal point in both formulas: St. Thomas states as clearly as possible that person in God signifies: either "relatio" - "non tamen in quantum est relatio," but insofar as it signifies "per modum substantiae quae est hypostasis subsistens in natura divina:" or "essentia," yet not as "essentia," but "in quantum essentia idem est quod hypostasis." Note the repetition in both formulations of the words: "per modum substantiae" or "per modum hypostasis." What St. Thomas is saying is this: divine person (e. g., the First) does not signify "paternity" (this would be "relatio ut relatio"); it does not signify "divine nature" or "divine essence" (this would be "essentia ut essentia," "natura ut natura"): it signifies either "Pater Deus" (this is "relatio per modum hypostasis") or "Deus Pater" (this is "essentia per modum hypostasis" and "distinctum relatione subsistens.") Note also the number of times the word "signified" is used in that key text.

In the first part of the *corpus* of this article St. Thomas cites various positions of his predecessors and contemporaries on this question of what "person" means when applied to God. The last position is thus worded: "Quidam vero dixerunt e converso quod significat relationem in recto, et essentiam in obliquo quia in definitione personae natura ponitur in obliquo." Now is this not the position that Fr. Vanier attributes to St. Thomas? Yet

of it, the Saint says: "Et isti propinquius ad veritatem accesserunt." In other words, they haven't hit the exact truth yet.

The author might object at this point and say that the opinion to which St. Thomas is referring does not predicate subsistence of the relation precisely as relation; whereas St. Thomas does. But let us read another part of this same article and see what St. Thomas says: this immediately precedes the long quotation above. "Distinctio autem in divinis non fit nisi per relationes originis, ut dictum est supra. Relatio autem in divinis non est sicut accidens inhaerens in subjecto, sed est ipsa divina essentia; unde est subsistens sicut divina essentia subsistit. Sicut ergo Deitas est Deus, ita paternitas divina est Deus Pater, qui est persona divina." Fr. Vanier also quotes this text (p. 71, fn. 2), but he underscores "est subsistens." This may draw attention away from the "unde," it does not obliterate it. How can St. Thomas more clearly indicate his thought that the relation is subsistent precisely insofar as it is identified with the divine essence. Yet the author insists that "c'est la relation en tant qu'elle subsiste dans son être même qui constitue les personnes et les distingue pour notre esprit de l'essence divine." (p. 76)

Perhaps the author's most serious misreading of a text of St. Thomas occurs in what might seem to be a point of minor importance, yet the statement of St. Thomas is not merely an aspect of his theological system; it is, in my opinion, definable. Let us reverse the author's procedure and quote the text of St. Thomas first. The subject is the "potentia generandi" in God. "Respectu illarum actionum secundum quas aliquae res producuntur distinctae a Deo, vel essentialiter vel personaliter, potest attribui potentia secundum propriam rationem principii. Et ideo sicut potentiam ponimus creandi in Deo, ita possumus ponere potentiam generandi vel spirandi. Sed intelligere et velle non sunt tales actus qui designent processione alicujus rei a Deo distinctae, vel essentialiter vel personaliter. Unde respectu horum actuum non potest salvari ratio potentiae in Deo, nisi secundum modum intelligendi et significandi tantum; prout diversimode significatur in Deo intellectus et intelligere, cum tamen ipsum intelligere Dei sit eius essentia, non habens principium" (*Summa*, I, q. 41, ad 4, ad 3). Here St. Thomas is considering various actions, which, according to our way of thinking, we must attribute to God. There are two sets: those according to which something really distinct proceeds, either essentially, i. e., creation, or personally, i. e., generation and spiration; those according to which nothing really distinct proceeds, i. e., thinking and willing. For the first there is real potency in God; for the second, potency is predicated "secundum modum intelligendi et significandi tantum."

Now here is Fr. Vanier's reading of this text, in which he arrives at the contradictory conclusion regarding the "potentia generandi et spirandi." "Il demeure cependant que nous n'avons affaire, ici encore, qu'à un con-

cept dont le but n'est que de satisfaire aux exigences de notre esprit. Car, en Dieu, l'intelligence n'est pas principe réel de l'intellection, qui s'identifie à elle et constitue en même temps la génération; bien que notre esprit conçoive cette nature intelligente comme principe de la génération intellectuelle. Il en va tout autrement de la puissance de créer. Celle-ci désigne l'essence divine comme principe réel de la créature, qui diffère réellement de Dieu." (p. 87) Here the author separates the "*potentia creandi*" from the "*potentia generandi et spirandi*," which St. Thomas has clearly joined together. He then admits a real "*potentia creandi*," and denies a real "*potentia generandi et spirandi*," because he confuses generation with intellection and spiration with volition, which St. Thomas carefully distinguishes. Possibly the author is not quite aware of what he is saying here. Previously he made this statement: "*L'essence divine n'est ni réellement principe d'une action dont elle n'est pas réellement distinct, ni réellement distincte de la personne perçue comme sujet de l'action.*" (p. 86) This is a quite accurate statement; hence when St. Thomas explicitly states that the "*potentia generandi vel spirandi*" is real, he obviously does not mean that there is a real distinction between the Person, the act, and the potency.

Personally I am grateful to the author for having given me this opportunity to return to the great texts of St. Thomas on the mystery of the Most Holy Trinity. A long-held conviction has been strengthened that St. Thomas' formulation of trinitarian doctrine is, in essentials, the same in all his works. Development took place in terminology, distinctions, presentation. He has also turned attention to the divergence between the East and West in the formulation of trinitarian doctrine. St. Thomas was aware of this divergence and he consciously strove to preserve the truth in each position. He also succeeded. Much more work could be done on this aspect of his teaching; for it will assume greater importance in the future. The Christian community is hoping and praying that the day will be hastened on which the Oriental dissidents will be united to Rome. One obstacle to mutual understanding both before and after that day will be traditional ways of conceiving the revealed doctrine of the Triune God. A humble service that could be performed by theology to smooth the ways would be a rethinking of both traditions in the light of the magnificent formulations of St. Thomas.

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The Sacraments in Christian Life. By M. M. PHILIPON, O.P. Translated by John Otto. Westminster: Newman, 1954. Pp. 410. \$4.25.

In this present work Fr. Philipon develops a theme which is becoming increasingly popular with modern spiritual writers, namely, the application to the modern world of St. Paul's doctrine that the Christian is another Christ. The author points out that this identification is achieved by means of the sacraments and the Sacrifice of the Mass. "For me to live is Christ" is therefore the main idea behind the work. By means of the sacraments the historic Christ becomes the Savior and the model of the individual soul, not merely as an individual, but also as a member of the Mystical Body. In fact, one of the merits of this book is undoubtedly the consideration given to the social nature of the Sacraments.

In dealing with Baptism as an incorporation in Christ's death and resurrection the author brings out the full force of St. Thomas' graphic phrase "to each baptised person the Passion of Christ is imparted as if he himself had suffered and died on the Cross." In this section one can detect the influence on the author of Dom Marmion. This incorporation is perfected by Confirmation, and in this chapter Fr. Philipon has many interesting things to say. The perfection of the Word Incarnate is the model for those who have been confirmed. They should be perfect Christs in the modern world. In case this ideal appears too high we should remember that the grace of God must not be minimized. It is all-powerful and abundant. In this connection the gifts of the Holy Ghost are explained simply but adequately.

The chapters on the Holy Eucharist both from the sacramental and the sacrificial aspects are very good indeed. The author points out how impossible it is to reach a full understanding of the Mass if the sacramental nature of the Sacrifice is neglected. This return to the simplicity and the depth of St. Thomas' explanation of the Mass is refreshing and satisfying. The fundamental idea of the Eucharist is brought out in these chapters and they should provide excellent material for meditation. People who are in love naturally have the urge to live together in a common life—and this has found its highest expression in Holy Communion. The section dealing with the Mass as the Sacrifice of the Total Christ is excellent both for its doctrine and the way the liturgy is used to bring home the author's main theme—that the Mass is the offering of Christ and the Church acting as one.

In the chapter on Penance there is plenty of matter for all souls, from those who are still in mortal sin to those who are in the higher stages of the spiritual life. By the redeeming power of Christ applied to the soul in this sacrament the sinner is made one with the innermost sentiments of love and expiation which filled the soul of Christ when He died for the salvation of all men. This thought is useful for those who live in a civilization which has

not only lost the sense of sin but also of expiation. The role of Penance in the struggle for Christian perfection is also developed as a continuation of the sanctifying power of Christ who came not to call the just, but sinners.

The author's treatment of the sacrament of Matrimony is both masterly and extensive. If the doctrine contained in these chapters were sufficiently meditated and put into practice the life of the Church would be far richer in every way. The teaching outlined by Fr. Philipon is the only basis on which a truly Christian married life can possibly be developed. Moreover, he has the art of bringing the vital spiritual principles into every-day application, as, for instance, when he indicates that the basic law of Christian love is the gift of self. The lack of this spirit of self-sacrifice is the main reason for many broken homes and unsatisfactory marriages. The intimate union with Christ, whose love led Him to give His life for us, is the secret of the unity, indissolubility and faithfulness of the true Christian marriage.

The same principle is then applied to the birth and education of children, which is from the educational point of view a continual bringing forth of life in God. Here Fr. Philipon has many useful things to say with regard to the training of the senses, especially through the virtues of fortitude and temperance, the education of the mind and that of the will. The family is truly the school of holiness. The section on conjugal spirituality is very practical, since it accepts as its basic principle that man and wife are called upon to become holy in the company of each other and through each other. The community of bed and board has to be completed by a common life of suffering and prayer. The author has some stringent criticisms to make of the modern attitude towards family life and suggests the need for a strong government program to deal with the evil.

The sacrament of Orders receives very full treatment both as it applies to priests and also to bishops. There is also a section on the pope. The social aspect of the sacrament is stressed and also the active cooperation of the lay apostolate of Catholic Action in all its forms. Once again the main theme is oneness with Christ as Mediator and also in His adoration, expiation, thanksgiving and petition. The priest is essentially another Christ because the sacramental character bestows on him the priestly power of Christ and also because the grace of the sacrament conforms his soul to that of Christ, the Mediator and Redeemer.

When dealing with Extreme Unction Fr. Philipon insists, with St. Thomas, that the full purpose of this sacrament is to bring the soul to a state of perfect holiness, so that it may be ready for the immediate vision of God face to face. Even after a long life of sin, if the Christian receives the sacrament of the dying with the appropriate dispositions, he will go straight to heaven without having to go to purgatory. The reason is that Extreme Unction is to Penance what Confirmation is to Baptism—its perfection. It is the perfect purification, removing every last trace of sin and completing the action of Christ in the soul. The author is careful to point out that

the grace of this sacrament adapts itself in a remarkable way to the needs of the individual soul—a truth which can apply equally to all the sacraments.

The final chapter of the book deals with eternal life in Christ and covers a wide field, including the judgment, purgatory, limbo and heaven.

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Tâche, Réussite et Échec: Théorie de la conduite humaine. By JOSEPH NUTTIN. Louvain: Publications Universitaires, 1953. Pp. 530.

This work by the distinguished psychologist of Louvain aims at the development of a comprehensive theory of human conduct by utilizing the data of experimental and clinical psychology. This data is envisaged impartially without any prejudicial conceptions of what psychology or human behavior ought to be. For this reason, this work of Professor Nuttin, as well as his previous work, is genuinely scientific, for it is objective, critical and free of pre-conceived ideas. The experiments are cleverly devised and carefully evaluated. But the author likewise shows that the existing literature on his topic and related topics has been carefully considered; here one notes with gratification a thorough acquaintance with recent American publications. Moreover this work is by no means restricted to the findings with which a so-called "objective" or "scientific" psychology is accustomed—or perhaps one should say, was accustomed—to be satisfied.

The author points out that his approach and his view of man as placed within a situation or world differs from the approach and view of certain contemporary philosophies which emphasize that one of the constitutive aspects of the human being is to exist in a world. Nevertheless it seems evident that these new movements in philosophy and philosophical anthropology have exercised a certain influence. Continental medical psychology has in fact responded to these suggestions of the new philosophies much more than general or experimental psychology. Moreover, two studies have recently been published here dealing with these matters: Stern's work on Sartre's philosophy and psychoanalysis and Sonneman's *Existence and Therapy* which discusses Heidegger's ideas and Binswanger's application of them to therapy. The psychiatrist or psychotherapist becomes aware in his daily dealing with clients of the intricate relations existing between the individual and his world. Now this work's experimental investigations and their analysis show that these problems can also be approached from the standpoint of general psychology. Thus Professor Nuttin's treatise is important not only to the philosopher who is concerned with the problems of human nature in general, its motivation and conduct but also to the

psychologist whether he is occupied only with the speculative problem or whether he intends to apply his scientific insights to the practical problems of therapy or education. Most particularly, however, this work is important to the last class, to those whose task it is to advise others, to direct, and if need be, to correct the behavior of others.

In the work itself, the author explains that human behavior depends first of all on the idea or image a person has of himself; it is this conception of self which determines a man's outlook on his situation and his possibilities. Secondly, the results of his actions react on this self-conception. Here it is not the mere repetition of trial and error, nor the mechanism of establishing an "S-R bond" or any similar process conceived more or less on the pattern of physical reaction which determines human conduct. It is the manner in which the individual evaluates his prior experiences and the shaping of his self-conception by his knowledge of success or failure which plays the most important role.

Since an exhaustive report on the findings and the analysis of the findings contained in this work is impossible, it will be sufficient here to indicate the field covered, which can be gleaned from the titles of the various parts of the work. The introduction outlines some general viewpoints: the determination of conduct by the personality and by the results attained, both factors interfering with each other. Part I deals with the effect success has on personality. Here it is shown that the subject's interpretation of the results depends on his basic attitudes or self-interpretation.

Likewise the manner in which past experiences are recalled as successes or failures depends to an unsuspected extent on this self-interpretation. Part II goes on to discuss the relation of obtained results to further conduct, especially to learning. Obtained results here are modified by the manner in which they appear to the object. In this section there is a penetrating critique of various theories of learning, particularly of the so-called "law of effect." A great number of these comments and observations are most pertinent to practical problems of education, teaching and guidance. The final part summarizes the major points and develops a comprehensive theoretical interpretation. One of the outstanding features of this interpretation is the emphasis given the cognitive element in human behavior in contradistinction to those conceptions of human behavior which speak of it as determined by needs, drives or other factors more or less mechanical. In the light of such discussion, the book achieves an additional pertinence for moral psychology in regard to the range in which man's actions are free or limited by natural conditions.

Professor Nuttin's work is recommended to all concerned with its subject-matter not only by reason of the thoroughness of treatment but also by its clarity of exposition.

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A Study of History. By ARNOLD TOYNBEE. Vols. VII-X. New York: Oxford University Press, 1954. \$35.00.

The Lie About the West. By DOUGLAS JERROLD. New York: Sheed & Ward, 1954. Pp. 85. \$1.75.

The writings of Professor Arnold Toynbee have received a warm welcome in America since the last war. Perhaps this is because the intensifying world crisis has made us all wonder whether our civilization may not also perish, like all the others known to history. Perhaps it is also because Professor Toynbee stresses the importance of freedom and activity in history, and because he points to an unending natural, spiritual progress in a religion without creeds.

Toynbee's view of history is universal, comprising all known ages and places on earth. His aim is "to throw some light on the mysterious unfolding of human life through time-space." (*Civilization on Trial*, N. Y.: Oxford, 1948, preface) For him the smallest intelligible unit of history is a whole civilization, not a national state like England. Toynbee's key to the riddle of history is his hypothesis of challenge and response. According to this theory, the rise and fall of civilizations result from the successful or unsuccessful response of a society to a physical or moral challenge. There are four stages in every civilization: 1) Birth, when the initial challenge, usually physical, coming from the geographical environment, is met; 2) Growth, in which material obstacles are overcome and there is a progress in meeting spiritual (moral) challenges; 3) Breakdown, which is caused by the failure to meet a moral challenge; 4) and finally Disintegration. The last is characterized by three conflicting classes: a dominant minority, which establishes a universal state, like the Roman Empire; an internal proletariat, which creates a universal church, like Christianity; and an external proletariat, which produces barbarian war bands and attacks the dying civilization from without. There is a rhythm of dissolution in a dying civilization, following a pattern of rout-rally-rout, as rebellions are put down or as various invasions are repelled only to occur again.

Toynbee tells of the genesis of his hypothesis in the first chapter of *Civilization on Trial* and in his *Study*, vol. I, pp. 272-99. Finding race and environment inadequate explanations of the rise and fall of civilizations and Spengler's theory too rigid and deterministic, he turned to mythology and received his inspiration from Goethe's *Faust*. In the prologue to this poem, the heavenly choirs are praising the works of God, which are so perfect that there is no room for His further creative activity. Fortunately, however, God is freed from this impasse by the Devil, who challenges God to allow him to spoil the perfection of one of His noblest creatures. God's response is to accept the challenge and thus gain the opportunity of continuing and advancing His creative activity.

Toynbee's challenge and response are closely related to Hegel's thesis and antithesis. He considers Hegel's account of creation an "academic abstract of the living truth," which "makes nonsense of it" by reducing it to the purely logical process of the absolute intellect (*Study*, IX, 395). Hegel's idealistic, pantheistic evolution is a dialectical process. It is dialectical because its dynamic force is a conflict of opposites—being and non-being, thesis and antithesis—which are resolved in a higher synthesis, becoming. This synthesis when opposed by its negation results in a new ascent in the evolutionary spiral. Hegel's philosophy is pantheistic because the absolute spirit (Hegel's "God") is in each and all things. It is idealistic because this evolutionary process is the purely logical workings of the absolute spirit.

Toynbee in asserting the reality of matter and spirit, drops the idealism of Hegel, and denies the pantheism, though he seems unable to avoid it entirely. He keeps the dialectical evolution but rejects the determinism of Hegel, for the will of man is free, being determinable by an infinite number of possible objects. Although he does not claim to have discovered any absolute, universal laws of history, he does find some apparently constant patterns according to which men freely work out their destiny. The most universal one is challenge and response. All progress results from a static condition (a thesis in Hegelian terms) being challenged by some dynamic force (antithesis). The resulting response gives genesis and growth (synthesis, becoming). Such was the beginning, for example, of the Egyptian civilization, which resulted from a double challenge and response. 1) There was a static condition when primitive men lived in the grasslands of North Africa. Then there was a challenge when these lands became a desert at the end of the ice age. Men responded by moving. 2) Some moved to the Nile delta, were challenged again by the marshy land there, and responded by draining it and founding a great civilization.

In 1953 Toynbee gave a series of radio lectures which were published under the title of *The World and the West*. He viewed the present world crisis as the result of a response by the rest of the world (Russia and the Orient) to the challenge of continued Western aggression. Drawing a parallel between Western and the declining Roman Civilization, he thought it likely that the West would be converted to a new religion coming from the East, as Rome had been converted to Christianity. He hoped that this new religion would retain the Christian belief in a God of Love but would drop Christian dogmatic exclusiveness for the more tolerant attitude of India. (Letter to *The Times Literary Supplement*, Apr. 16, 1954)

Mr. Douglas Jerrold, an English Catholic historian, has written his response to Professor Toynbee's challenge. His first response is to challenge Toynbee's facts. The West, he says, has not been continually aggressive. On the contrary, it was on the defensive for a thousand years

against the Northmen, the Magyars, and against Islam. The East has been aggressive too. Islam was a threat to Christendom from 700-1600 A. D. The Russian hegemony has steadily expanded from 1480 to the present, except for a brief set-back in 1918. Nor was Rome consistently aggressive. She was on the defensive for centuries against barbarian hordes on her north and east.

Mr. Jerrold also challenges Toynbee's logic. Because of his dialectical theory of history, Jerrold thinks he too often forces historical facts into pre-conceived patterns. He creates an entity, "the West," which he does not clearly define, then treats it as though it were a real unity, like one man or one government, with a continual life and consistent policy. He makes it appear to have such a policy by identifying any single aggressive Western power with the entire West—for example, Germany in 1918 and 1941. But in both wars the other Western powers were on Russia's side.

Finally Jerrold accuses Toynbee of treason against the faith of the West. Christianity was not one of many Oriental, exotic religions imported to Rome. It was preached by a Roman citizen. It was based on historical fact and is therefore unique and binding. By questioning the unique value of our Christian faith, our political institutions, our economic freedom, our independent families, Toynbee spreads doubt against all the basic values which the West has derived from Graeco-Roman civilization and from Christianity. And by spreading doubt, he promotes the downfall of our world.

By hurling the pebble of his little book at Goliath, Mr. Jerrold has scored a hit, but has not slain his enemy. In the first place, his book is an answer to Toynbee's series of lectures, not to the ten volume *Study*. In the second place it is indignant and polemical in tone. Consequently *The Lie About the West* will not appeal to professional historians because its language is not restrained and scholarly. In the third place some of Jerrold's arguments are not convincing, for example, that Christianity was preached by a Roman citizen, arose within the Roman Empire, and was therefore not a foreign importation to Rome. For St. Paul was a Roman only *de jure*; the Jews were a conquered people; and Jewish and Christian beliefs were alien to Roman culture. Finally, Jerrold seems a little too patriotic in his defence of the West, a little too unwilling to allow a modicum of truth to Toynbee's arguments. He tends to identify the West with Christianity and to ignore the apostasy of the Western powers. He "gasps" (p. 66) because Toynbee says that "the spiritual initiative . . . has now passed, at any rate for the moment, from the Western to the Russian side." But this is true enough to make the reader weep, not gasp. Toynbee is referring to the ability of Communism to inspire men to sacrifice for a cause. As he says (*Times Literary Supplement*, Apr. 16, 1954), "*Leviathan-Juggernaut* has overtrumped our little idol—*homunculus*." He means that the false common

good and diabolical world society of Communism have made a greater appeal to many men than the goal of a secular, capitalistic individualism—wealth, utility, and pleasure for every man.

Fundamental to Toynbee's way of thinking are his ideas on religion. The section on "Universal Churches," therefore, is the most important one in the new volumes of the *Study* and will be the principal source of what is said below. Toynbee gives a religious interpretation to history, seeing spiritual meaning and purpose in it. Religion is the end of civilization, which exists to promote it. Toynbee has no naive belief in a steady and inevitable material progress. His standard of progress is spiritual, not bigness or technical efficiency. All this we can only applaud.

Then in some places Toynbee seems at first glance to be sympathetic to the Catholic view of things. For him the historic Church is the Catholic Church, which is united by two great institutions: the Sacrifice of the Mass and the hierarchy. (*Civilization on Trial*, p. 242) The Catholic Church was the animating principle of Western Civilization, not a mere cocoon for its genesis. The pope, "the Vicar of Christ," is its spiritual leader. (*Study*, IV, 583) The Renaissance and Reformation were symptoms of cultural sickness. The saints are our models for religious conduct.

But the context of such statements reveals that in using the language of the Church, Toynbee does not mean what the Church means at all. His theory of religion is naturalistic and evolutionary. It is influenced by Modernism, which Toynbee praises. (VII, 456) Much of what St. Pius X said in the first part of *Pascendi* is applicable to Toynbee. As we have said above, Hegel seems to be his father: the evolutionary spiral of religious progress moves on as a result of the conflict of opposites. Man is naturally religious. As he progresses materially, however, he tends to idolize the things which serve him—the forces of nature, a deified leader, or a totalitarian state. He does so because each spiritual advance causes its opposite. The spiritual flowering under St. Benedict, for example, brought great wealth and power to the monasteries which caused a spiritual decline and eventually the suppression of the monasteries. The monks failed to meet the challenge posed by their prosperity. On the other hand, the tribulations of the Jews (a challenge) during the Babylonian captivity inspired "Deutero-Isaiah" to write the canticles of the suffering servant (a response).

Toynbee finds antithesis at the core of all religious belief, causing new beliefs in old religions and sometimes entirely new religions. The "feminine epiphany of the Godhead" as Mother is opposed to the "masculine epiphany" as Father. The "forbidding aspect" of God as a jealous judge is opposed to and difficult to reconcile with the "consoling aspect" as a forgiving "loving Saviour." Religion as social worship under a priest is opposed to individual, intimate communion with God. And so on. (cf. VII.

716) These conflicts are facile and misleading. First God is neither masculine nor feminine; the masculine gender is used in referring to Him because it expresses greater perfection. Second, He is a terrible judge only if we place ourselves outside His mercy by sin. Third, it is a fact that some saints have been most intimate with God in ecstasy during Mass.

Toynbee recognizes four "higher religions" or "universal churches," each of which emphasizes one or the other pole of an antithesis: Christianity, Islam, Hinduism, and Mahayana Buddhism. Each corresponds to, is caused by, and serves some psychological characteristic of man. Following Jung, Toynbee classifies Christianity and Islam as extrovert religions, tending to God as outside, transcendent; whereas Hinduism and Buddhism are introvert religions, tending to God as within, immanent. He describes the four according to Jung's four functions of the mind. Christianity emphasizes *feeling* in the doctrine that God is Love. Hinduism stresses *thinking* in seeing God as omnipresent. Islam, following *sensation*, teaches that religion is a fact and that Allah is Power. Buddhism by *intuition* has discovered that the desire for existence is the cause of evil and that escape lies in the extinction of desire—Nirvana.

This classification depends on the reduction of the living religions to four, which does not seem to be consistent with fact. It also depends on the psychology of Jung, which is not entirely satisfactory. It might be possible to reconcile thinking, feeling, and sensation with the Thomistic psychology, but what is intuition? Is it instinct or an unscientific use of reason? One must also ask, are not all faculties of the mind and all character types represented in those who follow each of Toynbee's four religions? Were the founders of these religions of the type corresponding to their religion? Did Christ "feel" only and suppress thinking into His subconscious, while Buddha made an "intuition" and suppressed sensation?

Toynbee professes belief in a transcendent God, but his God is apparently finite and subject to limitations. (I, 279-280) It is difficult to see how Toynbee can escape the charge of pantheism, or at least andrathism, to coin a word from the Greek, for God is the "Dweller in the Innermost," that is, in the subconscious depths of the soul. (VII, 501) Perhaps like the Modernists Toynbee confuses the action of God and the action of human nature, thus confounding man's being and God's being, the natural and the supernatural. (cf. *Pascendi*, 19) It need hardly be said that Toynbee tacitly assumes the impossibility and inappropriateness of a special, supernatural revelation through the external signs of miracles and prophecy and through an internal, supernaturally infused prophetic light. Miracles and special revelations are classed by him as "myths" and "legends." Our Lady in his hands becomes an "etherialized" pagan goddess, her Annunciation a universal myth "transfigured." (I, 272) Christ too is a "transfigured" Mithras or Adonis. (VII, 437) Here Toynbee seems to be using the

Modernist notion of "transfiguration"—the elevating of a historical fact above its true historical conditions so that by faith it becomes clothed with "religious truth." (cf. *Pascendi*, 9)

In developing his parallel between Christ and the pagan fertility gods, Toynbee refers to Christ's "divesting" Himself of divine power in the Incarnation and quotes Philippians 2:7, where St. Paul speaks of Christ's "emptying Himself." But the context of this passage belies such an interpretation, as do many other passages of the gospels and epistles, for example, Colossians 2:9, where we are told that in Christ "dwells all the fullness of the Godhead bodily. . . ." St. Thomas explains that Christ emptied Himself not in putting off the divine nature but in taking up a human nature. (*Super Philippenses*, II, i, #57)

Consequently there is no parallel between the Word Incarnate, who suffered and died *as Man* through an assumed human nature, and a pagan fertility god, who by nature dies and is reborn again as the greenness of the earth dies in the autumn and is reborn in the spring. The evolution of Our Lord and Lady out of pagan divinities is not a demonstrated fact, nor is it even demonstrable.

Toynbee exalts flux, change, and becoming because of his hypothesis of progressive evolution in history. Consequently a closed body of divine revelation is an abomination to him, for religion, which evolves from within man, must be constantly changing, adapting itself to changing human needs. Fixed creeds only thwart this development. Our response to this is that any progression is a movement towards an end. Objective revelation has reached its end, having been completed with the death of St. John. It therefore need not develop further. But subjective religion can and must progress, for we must constantly advance in our penetration and practice of objective revelation.

Consequently it is evident that Toynbee reads something that is not there into the gospels which he quotes so often in support of his thesis and into George Herbert's *Pulley*. (VII, 462) Herbert did not say that we must give up our old beliefs for new as the price of advancing, but only that as long as we are wayfarers towards God we cannot rest. Toynbee quotes the process of canonization of St. Thomas Aquinas to illustrate his argument. (VII 484, n.) St. Thomas, however, did not change his beliefs when after his ecstasy he could no longer write and considered all his writings merely straw. For the process of canonization also tells of St. Thomas' magnificent profession of faith in the Blessed Sacrament and his submission of all his writings to the Church when he received Holy Viaticum.

Behind Toynbee's religious relativism is his false dichotomy of man's faculties into the reason and the unconscious and of truth into the truth of science and the truth of religion. Following the Modernists, Toynbee classifies historical fact as pertaining to science and reason and religious doctrines

to faith and the unconscious. (cf. *Pascendi*, 16, 30) As a result he makes religion something sub-rational, anti-rational. He unjustly accuses St. Pius X of condemning Modernism for holding "that there is no ground for collision between Faith and Science." (VII, 485, n.) Actually the condemnation was of the *reasons* of the Modernists in holding this, as the context of the passage will show. (*Pascendi*, 16) It is a commonplace of Catholic teaching that there can be no real conflict between true science and true religion, because Truth, which is one, embraces both. Truth consists in the correspondence of the mind to the objective reality. Therefore it cannot be true by faith that God is a Trinity and that Jesus Christ is true God and true Man, while at the same time according to science these statements are not true.

Sister doctrines to the theory of the double truth in Toynbee's writings are the equivalence of all philosophical systems and the futility of theology. Philosophies are the by-products of civilizations such as the Hellenic or Indic and are all ephemeral. At best theology makes only a verbal reconciliation between "scientific truth and prophetic truth." (VII, 474-476) Creeds, we are told, are the product of theology. This is an egregious error. Creeds pertain to faith and need not use theological language at all. The deducing of conclusions from the creeds is the work of theology.

Toynbee accuses theologians of a refined form of anthropomorphism in conceiving of God in terms of feeling, will, and intellect. They worship an idol—"God the Reason." (VII, 467-68) But Toynbee overlooks the role of analogy in theology. Theologians do not place God and creatures in the same species. They speak of God and creatures analogically, by a remote similarity in which there is more unlikeness than likeness. God is said to be intelligent because He knows Himself and other things. His intelligence is infinitely above ours; but by denying all imperfection in God's knowledge, we can say that the relation of His mind to its objects is similar to the relation of our mind to its objects. If as Toynbee says, there is *no* ground for comparison between the infinite and finite, then God cannot be known in any way. He becomes completely unintelligible. Yet Toynbee holds that God exists and that He is Love. Surely these predications of God are no more adequate than the predication that God is intelligent. We can know God's existence and love only by comparison with the existence and love that we know already. If we are to love God, we must also know that He is good, perfect, holy, intelligent, wise, living, merciful, and in possession of all beatitude. But although we know these and many other essential attributes of God, no theologian would claim that our analogical knowledge of God is adequate to comprehend Him. St. Thomas was certainly well aware of the limitations of theology long before his ecstasies. He was aware of it when he wrote the first question of the *Summa* and in the prologue to the third he said that we do not know *what* God is but rather what he is *not*.

Toynbee's notion that the Christian God is a God of Love but not of Justice, that there is an incongruity between the God of Josue and Jesus is not supported by the facts. Christians have always praised God by singing the Psalms, where the power, majesty, and justice of God are extolled as well as His love and mercy. And Christ, said, "He that is not with me is against me" (Matthew 12:30, proclaiming Himself as jealous as when He gave the Decalogue. He warned, "He that believeth not shall be condemned," (Mark 16: 16) and showed Himself as just as He was merciful in promising mercy to those who believe and are baptized.

It should be noted that Toynbee's own beliefs are almost all entirely Christian in inspiration. He speaks of the sacrifice of the Incarnate God, of grace, original sin, salvation, eternal life, the kingdom of heaven. Christianity is superior to all other religions in its "intuition" that God is Love. But it is still dogmatic, and the broad tolerance of Hinduism is in advance of Christianity. (VII, 735) This "charity" towards all other revelations is the only inspiration which Toynbee has derived from the Orient. The new religion which he hopes for as a result of a more universal outlook, of the reconciliation of heart and head, of East and West would be a syncretistic stew, a dogmatic cipher. He leaves the reader with no positive idea of what it might be, except a monstrous blasphemy, if the sentimental, incongruous, travesty of the Litany of the Saints in volume X, p. 143, be a sample of the new "religion." Begging "Christ Tammuz" and other "Christs" to hear us, invoking "Mother Isis" and "Mother Cybele" in the same breath with Our Lady suggests that it might be a reversion to polytheism, which Toynbee abhors.

There is much more that could and should be said. It is regrettable that nearly all that has been said in this review has had to be negative. It is even more regrettable that such a devoted historian of genius as Professor Toynbee has sought to be a prophet and preacher as well.

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BRIEF NOTICES

Opuscula Theologica. By ST. THOMAS AQUINAS. Vol. I. Edited by RAYMOND VERARDO, O.P. Pp. 531. Vol. II. Edited by RAYMOND SPIAZZI, O.P. Pp. 441. Turin: Marietti, 1954.

Opuscula Philosophica. By ST. THOMAS AQUINAS. Edited by RAYMOND SPIAZZI, O.P. Turin: Marietti, 1954. Pp. 379.

With the publication of these three volumes, Marietti substantially augments its series of manual editions of the works of St. Thomas. The *Opuscula* are among the more important minor works of St. Thomas, written by him on the occasion of various disputes and consultations, and of great value insofar as they deal integrally with a theological or philosophical subject. These new editions, similar in format to the other manuals in the series, are well arranged typographically both for systematic study and for ready reference. While no attempt has been made to provide throughout a definitive critical text, the editors have emended the old Parma text, drawing on the Piana and Veneta editions and recent scholarship for some variant readings, and thus provide a sound doctrinal text suitable for manual use.

For practical reasons, the theological *Opuscula* have been divided into two volumes, the first entitled *De Re Dogmatica et Morali* and the second *De Re Spirituali*. Admittedly this is not a perfect division, insofar as much of the matter of each volume could easily pertain to the other. Especially notable among the contents of the first volume are the *Compendium Theologiae* and *Contra Errores Graecorum*. To the latter *opusculum* has been appended, for the first time, the anonymous *Libellus* on which St. Thomas based his refutations. Another innovation is the presentation of a second text of the *Responsio al Lectorem Venetum*, complete with critical apparatus. The second volume contains, among other items, the various *opuscula* written by St. Thomas against contemporary opponents of the religious life, the exposition of the Creed, the "Our Father" and the "Hail Mary," and the Office of Corpus Christi. An appendix has also been added containing the complete commentaries on Boethius' *De Trinitate* and *De Hebdomadibus*, edited by M. Calcaterra, O.P. In the case of *De Trinitate*, variant readings for the fifth and sixth questions taken from the new Wyser edition have been indicated in the footnotes.

The philosophical *Opuscula* have been rearranged in order of subject matter, rather than chronologically or according to the numeration of the old Romana edition. As in the theological volumes, all works that are now unanimously regarded as apocryphal have been excluded, although the

editors have retained the *opuscula* rejected as spurious by Mandonnet but regarded as authentic by Grabmann. Some of the more important works in this volume are *De Ente et Essentia*, *De Principiis Naturae*, and *De Regimine Principum*. Where possible, a synoptic table of the argument contained in each work has been indicated.

The editors have prefaced each volume with a general introduction, and in addition have supplied special introductions for each *opusculum*. The latter deal with historico-critical problems and take into account all major difficulties, not so much to solve them as to present the state of the question accurately. Bibliographies have been supplied for those who wish to delve further into the matter. Paragraph numbering in each volume is separate, and clear textual divisions have been indicated throughout, preserving St. Thomas' divisions in italics. Scriptural citations have been furnished from the Vulgate, except that the psalms are cited from the new version of the Pontifical Biblical Institute. As in the previous volumes of the series, parallel places have been noted, and the indices are complete, including biblical references, authorities cited, subject matter, and general tables of contents.

These new editions will be a boon to serious students of St. Thomas, as well as to libraries attempting to amplify their Thomistic source material. Until the Leonine Commission completes its voluminous work, they will assure Thomists of reliable working texts with which to grasp an integrated knowledge of important features of the Angelic Doctor's philosophical and theological doctrine.

Nature and Grace. By MATTHIAS J. SCHEEBEN. Translated by CYRIL VOLLERT, S. J. St. Louis: Herder, 1954. Pp. 385 with Index. \$4.95.

Not the least advantage of this book is the foreword by the translator, Father Cyril Vollert, S. J. Thanks to it the reader has a backdrop against which Scheeben's work may be viewed—the Protestant despair of nature and the Kantian despair of supernature, the abortive attempts of Catholic theologians to exploit the new philosophies for the benefit of the Faith, and the nascent neo-scholasticism of Scheeben's own Roman masters. In the fusion of such elements his ambition crystallized to "make the drab naturalistic world glow again in the light and beauty of grace, to bring back to the consciousness of men the glorious destiny of their conformation to God." Scheeben wrote for an age sick to death of the Enlightenment, and his remedy was the systematic display of the inner treasures of the supernatural. Father Vollert here offers the same cure to an English-speaking world no less in need of antidote for the venom of naturalism and despair which, as Scheeben foresaw, "threaten to throttle and destroy all that is specifically Christian."

As preservative, or restorative, of the concept of the supernatural *Nature and Grace* is singularly apt. It is also singularly difficult to appraise briefly. To say that the theme of the book is "*operatio sequitur esse*" is obvious over-simplification. It is also the truth. The distinction between the natural and the supernatural orders was drawn by the Church through centuries of conflict between the opposing heresies of Manichees and Pelagians, of Lutherans and modern "naturalists"; it yielded solutions of the most vexing ethical problems. Scheeben contended that the same distinction could be used to solve the equally vexing intellectual and ontological problems of his day. He sets out to distinguish between two orders of knowledge and truth, of morality and good; but to do this he must penetrate to the deeper level of the ontological orders in which powers are rooted and whence operations flow.

By the term "nature" Scheeben does not mean that which man has of himself absolutely, as apart from God. He is not an Augustine battling the Pelagian theory that the power to do good is as much within human competency as the power to do evil. Nor is he an Augustine against the Manichees, with their exaggerated contempt for nature. "Nature" here is neither complete determination to all good, nor complete indetermination. It possesses a certain indestructible goodness, and a potentiality for development towards a goal proportionate to its own powers. It possesses, moreover, an obediential faculty for being elevated to supernature.

Knowledge and love proceed from powers proportionate to the excellence of the nature in which they are subjected, and have objects which vary according to the same norm. The author accordingly leads his reader first to the realization of the heights which man's spiritual nature can attain in the knowledge and love of God as Author of nature. Beyond this is revealed the knowledge and love of God as He is grasped by supernatural faith and charity, founded upon supernature. Beyond this again lies the knowledge and possession of the vision in which grace comes to fruition.

The chapter on "The Metaphysics of Supernature" is perhaps the most original and the most deserving of special mention in a necessarily eclectic review. The familiar relations between substance and accident, and between first and second act, are here applied to the supernatural order to explain that in this order the vital principle is itself not substance, but accident, and at the same time is the common sub-stratum for other accidents, the manifold supernatural faculties and acts rooted in the specific nature of the graced being. This accidental character of grace is shown as the reason why a single faculty, of faith for example, can be infused without the substratum which would bring all other virtues along with it. By the same token, the supernatural faculties have their cause in God, not in a substance in which they, as accidents, inhere. An interesting application of the Thomistic concept of the relationship between immateriality and intel-

lectuality shows that grace, strictly and formally, confers upon man the likeness of the intellectual nature of God by which, in the beatitude of heaven, he becomes capable of engendering by way of knowledge the image of the divine essence.

In the two chapters dealing with the union of nature and grace, the Author deals with the thorny problem of the relationship of grace to freedom. He follows Gregory of Valencia in the position which he later explains more fully in *The Mysteries of Christianity* (p. 712 *seq.* of Father Vollert's translation). Scheeben thus stands midway between strict Thomists and Congruists, and no matter which of these positions a reader may accept, he will find this discussion both dispassionate and stimulating.

It would be impossible to give here an adequate idea of the cogency of the reasoning throughout *Nature and Grace*, or of the spirit which illumines and transforms its pages. It is indeed scientific theology, but it is not coldly intellectual. It is a book which demands strenuous thought, but it pays dividends in devotion. Finally, it is encouraging to remark the hesitancy with which Scheeben breached ideas which he feared would "strike readers as novel and unknown." Although his synthesis has lost nothing of its freshness or vigor, neither his ideas nor his terminology sound as strange now as they must have when he began his lifework with this book. That American Catholics are prepared to accept and assimilate a theological work of this calibre we owe to a century of painstaking theological writers and teachers like Scheeben and to translators and teachers like Father Vollert.

Signs and Symbols in Christian Art. By Reverend GEORGE FERGUSON. New York: Oxford University Press, 1954. Pp. 346, illustrated. \$10.00.

This is undoubtedly one of the most beautiful works on religious art published in this country. Its unique format, typography and delicate illustrations, both colored and black and white, make it a very attractive volume. Anyone seeking a fuller appreciation of Christian art or a simple exposition of Christianity itself will certainly find general satisfaction here.

The scope of the book, to tell how the Christian attached religious and spiritual meaning to all that he observed, is ambitious; yet is herein handled with thoroughness and discretion. Christian art is soundly judged and explained as an integral part of the Church's apostolic mission, using every available means including the simplest natural analogies, to propose the truths of revelation. The examples so beautifully presented are taken almost exclusively from Renaissance painting, and the description and evaluation of the signs and symbols follows a logical grouping and alphabetical order, making easy references possible. The symbols are taken from the world

of animate and inanimate objects, the principal articles of the Creed, the lives of Christ, Mary and the saints.

The author, an Episcopalian minister, quite naturally uses the text of the King James version in his extensive quotations from the Bible. Quite naturally, too, there is a constant reference to either the explicit word of the Scriptures or mere legend, without any awareness of or sensitivity to valid Christian tradition. This fact, of course, demands that the Catholic reviewer be cautious in his judgment.

Unfortunately then, the work does not fulfill all the hopes which its title inspires. A truly "comprehensive book about the sources and uses of signs and symbols in Christian art" should provide an excellent *locus* from which to argue theologically. This is where the work fails to satisfy, for its extensive descriptions of each symbol are not substantiated by clear historical references, nor is there any distinction made between what is mere legend and what is derived from Apostolic Tradition and the Faith of the Church.

The doctrine of the Assumption of Mary, for example, is not separated from the many legendary details that have developed and found expression in Renaissance painting. Again, St. Nicholas of Myra or Bari, it is said, "is regarded by historians as a purely legendary character," yet he is the "chief patron saint of Russia." There is in these and other instances an unfortunate carelessness which seriously diminishes its theological worth.

This present work does indeed present a challenge to Catholic art historians to reach further into Christian antiquity and with the aid of their faith to discover and explain the significance of those signs and symbols in Christian art which bear evidence of the true Faith in the Scriptures and Apostolic Tradition.

Order and Law. By AEGIDIUS DOOLAN, O. P. Westminster: Newman, 1954.
Pp. 210 with index. \$3.50.

Here is an excellent, elementary text for laymen, by an Irish Dominican, setting out in a clear, simple style the teaching of St. Thomas Aquinas on law, justice and rights, with particular attention to the right of private property. Catholic professional men, especially, need books like *Order and Law*, which supply them, in a language they can understand, with the principles they must know if they are to contribute articulately to the rebuilding of our society, permeated as it is with secularism. Father Doolan has placed within the easy reach of Catholics teachings of the Angelic Doctor which well-instructed laymen can apply in a way to influence the thinking and actions of society in a manner beneficial to the common good.

The author has taken the risk of oversimplification in order to avoid the

perhaps greater danger today that Catholic philosophy will not be read, even by Catholic laymen. The chapters are short, permitting even the reader sorely pressed for time to complete each topic at a single sitting. This arrangement apparently arises from the fact that some of the material in the material in the book previously appeared as a series of articles in *Hibernia*.

This book may lose some of its appeal to American readers because most of the contemporary references are to persons, places and events which are not familiar to them. In this connection, it is unfortunate that one of the rare quotes from American sources should be erroneously attributed to the Constitution of the United States instead of to the Declaration of Independence.

Treasury of Philosophy. Edited by DAGOBERT D. RUNES. New York: Philosophical Library, 1955. Pp. 1304 with index. \$15.00.

Excerpts from nearly four hundred philosophers, varying in length from a paragraph to a very few pages, with each citation preceded by biographical and analytical notes, constitute this *Treasury*. How valuable are the contents will depend upon the goals it is required to serve.

As a "comprehensive collection of philosophical writings," it is frustrating. Too many philosophers, and of these too many of minor impact, are represented and all much too briefly. Moreover, the representative character of the selections is often questionable; as an outstanding example, the stature of St. Bonaventure's thought is hardly conveyed by a page from his "Life of St. Francis of Assisi." Since Dr. Runes' conception of philosophy is broad to the point of meaninglessness "the search for the indefinable," no quarrel can be made as to those included in the volume. The omissions, however, become all the more puzzling; for instance of Suarez, Vittoria, Chesterton, Lavalley, Tillich, Niebuhr, Stalin. Copernicus, Galileo and Newton are frequently referred to but not offered in their own works. The philosophers are presented in alphabetical order instead of the chronological order which might have had the advantage of permitting note of the growth or decline of philosophy in scope and profundity; it might also have been the sole, if superficial, indication of continuity. It would also, of course, have revealed more clearly the preponderance of modern thinkers and, more importantly, the remoteness of many of the selections from the central philosophic interests of the age represented as well as the philosophers involved. Metaphysics, certainly of prime importance to many philosophers, brings but little of its gold to the *Treasury*.

Nevertheless, if so bulky a volume can be considered unpretentious (the claims to greatness are of the dust jacket, not the preface), some purposes can be served by it. Its paragraphs and pages, though few, convey far more

of the ideals and ways of philosophic thought than the usual epigrams and proverbs gathered together as "the wisdom of the ages." The emphasis upon the Jewish philosophic contributions and the space allotted Oriental thinkers help bring the actual state of philosophy into focus. The biographical and analytical notes are, for the most part, accurate and informative. The inclusion of minor and little known philosophers may be later stimulating as well as at first irritating. The *Treasury* mirrors the present state of philosophy itself and shows it to be, in John Dewey's phrase, "an on-going enterprise."

Proceedings of the American Catholic Philosophical Association. Vol. XXVIII. Washington: The Catholic University of America, 1954. Pp. 282. \$3.00.

The theme of the current issue of the *Proceedings* is the Existence and Nature of God. All the papers and discussions contribute in varying degrees to the exploration of the theme which represents the summit of rational speculation. Some contribute in a positive way, others negatively. Again several of the major papers and discussions do this by re-presenting the traditional triumphs of the golden era of scholasticism, while others by exposing notions current in modern philosophy. Throughout the entire *Proceedings* one is conscious of an awareness of the modern mind by the various authors and of a sincere attempt to meet that mind with its mistrust of reason, its lack of a true metaphysics, its confidence in experimentalism. This attempt is most strikingly exhibited in the study on "Ordinary Knowledge of God and Philosophical Demonstration" and in the discussions on "The Value of the Moral Argument for God's Existence" and "The Finite God in Modern Thought."

Two papers in the traditional vein are of particular interest. One concerns the proofs for the existence and nature of God as formulated by Duns Scotus, the other a study on "The Prime Mover in Philosophy of Nature and Metaphysics." The first, while in the manner of a commentary, is a welcome contribution. The attempt to trace the arguments of Scotus affords many an opportunity to see something of the reasoning of one too often known only in his conclusions. The study on "The Prime Mover in Natural Philosophy and Metaphysics" emphasizes a point too often forgotten or obscured by many, i. e., the dependency of Metaphysics on Natural Philosophy in the way of invention. The excursions of the mind into the realm of being are in most cases presented as a *fait accompli*, a study of an object that somehow or other just appeared on the intellectual horizon, all bedecked in metaphysical finery. The painstaking labor of the mind and the rich results of that labor in the field of Natural Philosophy, wherein the

intellect comes upon the existence of the Prime Mover, are overlooked, and with important results. It is usually evidenced by the student's inability to grasp the fact that he now stands at the summit of reality, at which point he is immediately aware, or should be aware of the ultimacy of being. The maturing process which the mind undergoes in the study of natural being is a point worthy of some emphasis by the metaphysician, so that the beginner may be in the way of appreciating the fact that he is at the summit of speculation. Too often the ascent to the heights of speculation is by way of a mental elevator which lifts the occupant up without so much as generating one drop of mental perspiration. The idea of mounting upward in this easy fashion, while hygienically appealing, is philosophically repelling.

Modern Science and God. By P. J. McLAUGHLIN. New York: Philosophical Library, 1954. Pp. 89. \$2.75.

This little book contains a new translation of the Papal allocution made to the Pontifical Academy of Science on November 22, 1951, together with explanatory notes inserted between the numbered paragraphs of the text. The allocution itself is a timely document which manifests the Holy Father's interest in the remarkable progress of physical science. It shows also a profound appreciation of the significance which recently discovered facts concerning the extent, direction and duration of cosmic process have for our knowledge of God and creation. Here there is no obscurantism or skepticism, no extravagant affirmation, but rather a frank acknowledgment of many solid achievements of modern scientific research, and a realistic appraisal of them as empirical foundations for arguments which lead to a knowledge of God the Creator. The explanatory notes are intended to help the ordinary reader who is not a specialist in modern science or in philosophy, but who will welcome a little light from either or both. Text and notes are clearly and simply presented in this neat little book. The work will not only enlighten beginners, but also stimulate the more proficient to a deeper and truer appreciation of nature as the interpreter of God.

Sovereign Reason. By ERNEST NAGEL. Glencoe, Ill.: The Free Press, 1954. Pp. 315 with index. \$5.00.

The sixteen studies in the philosophy of science collected in this book were written for different occasions and previously published. All save one of these essays are critical studies of contemporary philosophers who have been occupied more or less directly with the content and method of modern

science or with its bearing on contemporary thought and life, particularly of Pierce, Dewey, Whitehead, Russell, Eddington and Blanshard. The final essay treats of the perspectives of science and the prospects of men. "Certitude is not and cannot be achieved by the actual methods of positive inquiry." Nevertheless, "no antecedent limits can be set to the power of scientific reason to acquire theoretical mastery over natural and social processes. Every doctrine which pretends to set such limits contains within itself the seeds of intolerance and repression." (p. 308) In other words, nothing is so certain as uncertainty. Aristotle was much more consistent when he defined science as knowledge of the necessary reasons of things, insofar as they have necessary reasons. Whether we truly know some of them or not, at least we think that we do, and this is what we shall always mean by science in the sense of genuine knowing. Mr. Nagel has a sharp intellect, and writes with skill and clarity, but he has suffered the grievous accident of not doubting well. He needs a year's study of Aristotle's analytics and fundamental physics in order to understand some first principles and how to apply them.

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